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KEITH'S MAGAZINE

ON HOME BUILDING

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THE JOURNAL OF MODERN CONSTRUCTION

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A PICTURESQUE SWISS DESIGN OF CEMENT AND TIMBER CONSTRUCTION WHICH, WITH OTHERS OF THE STYLE, HAVE INSPIRED MUCH OF THE MODERN WORK IN THESE MATERIALS

KEITH'S MAGAZINE

VOL. XXV JANUARY, 1911 No. 1



(A) A DESIGN OF QUIET HARMONY AND RESTFULNESS —W. M. Kenyon, Architect

Stucco Exteriors in the Northwest

By CHAS. S. SEDGWICK, Architect

THE use of cement on the exterior of frame buildings is rapidly on the increase throughout the United States, and is specially noticeable in the northwestern cities of Minnesota, Wisconsin and the Dakotas. To many this comes as an innovation, something strange and new, a sort of experiment, to be tried and tested. To such it may be of interest to know that this method of construction is not new to practice, although it may be new to certain localities and to people who have not seen it before. This application of cement to exteriors in reality is many hundreds of years old. During the Centennial year of 1876, it was the good fortune of the writer to visit the great Philadelphia Exposition, and while there examine the English buildings that were con-



(C) A DESIGN OF STATELY BEAUTY
—Bertrand & Chamberlain, Architects

structed in this manner and having all of the characteristics of the early English half timber and cement designs so common to England. These buildings attracted much attention because of their quaintness and marked contrast to all other buildings. There was a certain kind of barrenness, that was produced by the lack of detail, plainness of outline, simplicity of cornices and slight projections, all of which was "very English, don't you know."

Cement in itself as a durable building material, when properly used, has no equal. For many ages it has been the common exterior cover for brick and stone buildings in Germany, France and England, but its present application to frame buildings, according to our western custom, is practically new and may be said to be in its experimental age. The present method of applying it to metal lath, nailed to wood sheathing, is largely experimental, but it makes a splendid protection against the weather and will doubtless last for many years and if well protected by a good waterproof wash, the lasting qualities will be greatly increased, and it is certainly worth a "try," as it is proof against cold and damp, and is susceptible to many very pretty finishes. What is commonly known as the "English" style of domestic architecture, and to which we have just referred, is very well illustrated in the four selections, all of which are Minneapolis homes and reflect much credit to the ability and artistic taste of the architects and the owners.

Before speaking of these beautiful homes, we will pay a passing tribute to the landscape, that like the appropriate frame, "Sets off the picture," and no "home" is complete (in our judgment) without it. These homes, in a certain sense, are ideal, and largely so because they have "grounds," and are inclosed with either rugged walls or hedges with posts and gates, and a modest amount of shrubs and vines.

The general character and style of



(D) A DESIGN SOMEWHAT SEVERE IN CHARACTER



(B) ON SIMPLE LINES WITH HOME-LIKE ATMOSPHERE —Wm. M. Kenyon, Architect

these houses, by reason of their striking similarity, might indicate that the same head and hands had been "Father" to them all, at least the designers were in harmony in thought and execution. In each of the four exteriors, which may be designated by letters A, B, C and D, the first section of wall from the grade to first story windowsills and in the case of C and D to the top of the first story is built of brick, from the top of the brick to the cornices the walls are finished with "half timbers" and cement except D, which shows entire cement walls without the timber effect. Here then we have four examples of our "Western" attempts at producing English architecture, and as we look at it, they are quite a success and will compare well with similar designs in older countries.

For quiet harmony and restfulness in design, A is very pleasing, the liberal breadth of frontage and the low roof, together with the recessed central section, impress the observer with a sense of quiet retirement and repose that is not so much noticed in the other designs. Undoubtedly the pretty, quaint gateway at the side and the winding walk add much to this feeling. The half timber and gable treatment is quite similar in all of the designs.

The absence of piazzas is at once noticed and is characteristic of English homes. The porch entrance in C is specially well treated and in excellent harmony with the general design. The canopys over the entrances to B are also good and look well with the design in connection with the terraced approach, and are in keeping with the gables and timber treatment above.

The porch entrance to D seems to be a slight digression from the general design, but the brick work of approach and piers looks well and adds to the substantial appearance of the design. Both designs, C and D, have a slight touch or feeling of the Gothic, which is noticeable in the dormer and gable treatments, and in the battlemented walls of the bay windows, that in case of C are carried up through the main cornice with very pretty effect, although as a matter of construction they are not desirable as they form bad places for lodgment of ice and snow, that may in time cause leaks and discolorations, and for this reason are features to be avoided. In this day of fresh air breathing and sanitation, the pleasant "sun rooms" in B, C and D look very inviting and add to the beauty as well as the comfort of these designs.

Of the four designs, C is perhaps the most striking and one reason for this is the roof and dormer treatment. The graceful curve to the eaves and the rugged effect of the tile, together with more enriched detail, all aid in the composition of a very artistic and pretty design. The foregoing remarks are not intended as a criticism of these admirable houses, but rather as an aid to the study of the designs, selected from the best of our recent modern homes, and in conclusion, if asked what is the most prominent feature that commands attention and remark in these four houses, the reply might very reasonably be, the use of the cement surfaces in combination with the timber and brick. It is picturesque, artistic and practical and carries with it a look of permanence, something durable, that does not require frequent painting and in every way is a great advance for better homes and more beautiful cities. After considering these four beautiful homes, and their successful use of cement, the reader must not draw the conclusion that such treatment is appropriate only for the larger homes, as such is not the fact and the many very pretty bungalows and cottages finished with cement "dash" is sufficient evidence of the value of this material for the small and inexpensive home.

Construction Details of the Home

Details of Basement Walls, Posts, Girders and Joists

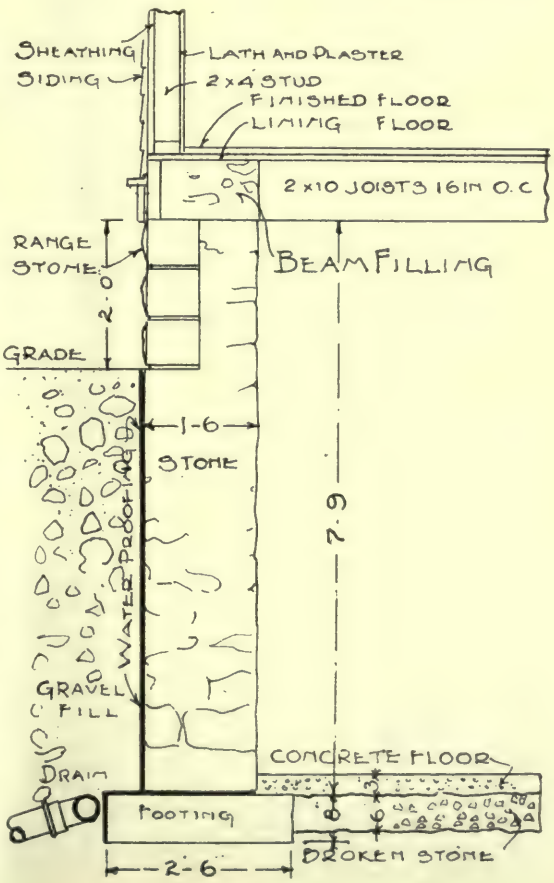
By H. EDWARD WALKER

(Continued from December Issue)

HAVING ascertained the condition and composition of the soil with a view to the best materials to employ and the general requirements of the situation, consideration may be given to more exact dimensions and details. Attention is called to Figure 6. Note first of all the footing of cement shown 8″ thick with a projection of 6″ beyond the width of the wall on each side. A footing should always project less than its thickness and if the bearing power of the soil is weak, requiring a greater spread, two or even more footings should be formed, each of a thickness and proportion that will conform to the above rule.

Footings should be poured between planks staked to hold them in position and composed of 1 part Portland cement, 3 parts sand and 5 parts gravel or crushed rock, thoroughly mixed. On good soil they are often omitted, the wall being built upon a level bed and of selected stone at the bottom, if the wall is of this material. The basement walls of a modern frame house of ordinary size built of stone need not be more than 18 inches in thickness, or 4 inches greater for a brick house. If the wall is concrete in proportions as stated for footings, it need be only 12 inches in thickness for the frame house and 16 inches for the brick house. A good depth for an ordinary basement is 7 feet 6 inches in the clear, which with 3 inches of concrete for the floor, makes a total height of wall 7 feet 9 inches from top of footings. The broken stone beneath the floor is only used in the best work. Externally 2 feet from grade to top of wall is sufficient, allowing space for 3 courses of 8 inch range work. More than this gives a house a stilted appearance, unless it is large.

The posts, girders and first floor joists are so intimately associated with the



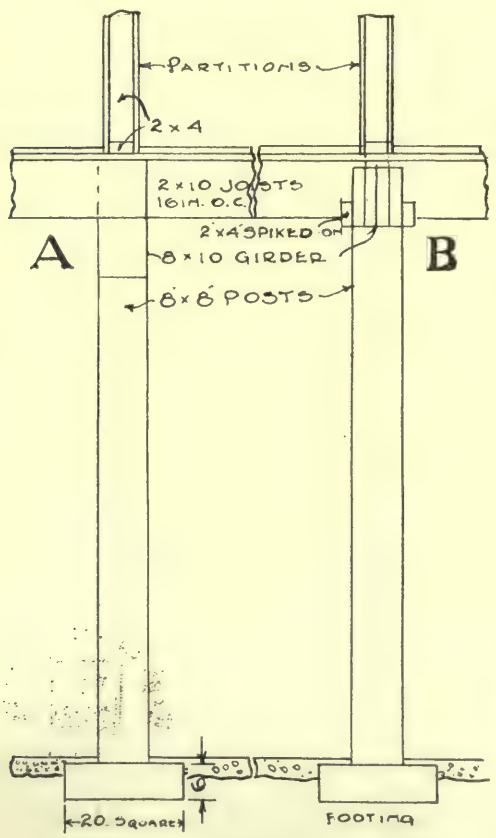
(Fig. 6)
SECTION THROUGH BASEMENT WALL

basement that their consideration is best taken up in this connection.

Figure 6 shows the floor joists resting directly upon the wall with a joist spiked across their open ends. The old time wood sill is seldom used as this method is simpler, cheaper and just as good.

After the joists are in position and before the lining floor is laid the top of the wall is filled in between with brick, concrete or stone as indicated by the "beam filling."

As to sizes of joists, it is the average house that is under consideration, the kind that "everybody" might build, having spans seldom over 14 feet long. Joists 2 inches by 10 inches, spaced 16 inches on centers, as shown, will be quite sufficient for first and second floors. Eight and even six inch joists may be used higher, where there is little weight, but plaster cracks will be avoided largely by using good substantial joists well supported. The designer of a given set of house plans will readily demonstrate the carrying capacity of his floor joists in relation to the load carried.



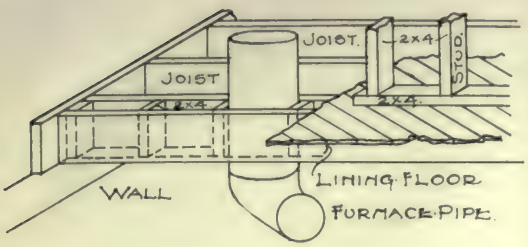
(Fig. 7)
POSTS, GIRDERS AND FLOOR JOISTS

The position of the girders supporting the joists is an important matter and varies according to kind of heating plant employed. Drawing A, Fig. 7, shows the girder placed entirely below the joists with a partition located directly over it. This is correct where a furnace is to be used, the pipes coming from same passing easily over and above the girder, to reach the space in the partition between the studding, on their way to the upper floors.

Drawing B, Fig. 7, shows the joist framed on the girder. It is set high with a 2x4 spiked to each side, over which the joists are notched and securely spiked at every point of contact. This allows the steam or hot water pipes to be set high with proper pitch for drainage.

Either of these methods of construction would be very unsatisfactory if provided for the wrong heating system. The girder in "B" would have to be partly cut away to allow the furnace pipe to enter the partition while in "A" the girder would make it necessary to set the hot water pipes very low, in some instances interfering with headroom. The girder in "B" is built up of several joists spiked together.

Such a girder is often superior to one piece timber because defects can be more readily detected in several individual timbers than in one large timber. Another point to be remembered in framing joists for a house warmed with a furnace is the passage of pipes into a partition that is supported upon the floor joists and not continued down to the basement floor. It is customary to double or even triple the joists under such a partition,



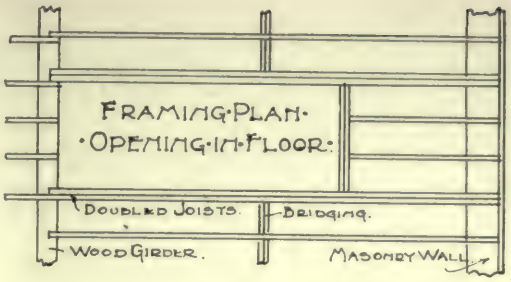
(Fig. 8)
FURNACE PIPE ENTERING PARTITION

but this cuts off any possible entrance of the pipe to the space between the studding.

Openings may be provided by putting short pieces of 2x4 upright between the joists, separating them sufficiently to allow the passage of the pipe as in Figure 8. The timbers must all be carefully spiked and if there is much weight upon the partition it must be reinforced by an additional plank on each side, making two on each side, with the 2x4 pieces upright between them.

Careful attention should be given to the framing over basement windows, for it is here that weight is contributed by both side walls and joists.

Figure 9 shows a vertical section through the window frame, placed in position upon the wall. The joists at either side of the opening are framed upon the wall in the manner before mentioned with the usual limiting timber across the ends. An additional piece, "A," is spiked to this limiting timber, cut between the wall supported joists and showing the



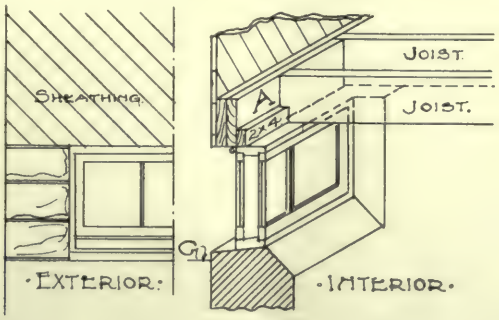
(Fig. 10)
JOISTS ABOUT FLOOR OPENING

window opening. Spiked to "A" is a 2x4, over which the intervening joists are notched.

Openings framed in the floor should be limited on all sides by doubled joists. A typical case is shown in Figure 10. Joists should never be placed nearer than 1 inch to the walls of any flue or chimney stack.

An opening of not less than 20 inches should be left in the floor before each fireplace to accommodate the hearth. The lining floor, which is laid on top of the joists, should be placed diagonally, as indicated in Figure 8, because the finished floor can then be laid in either direction without fear of opening cracks. Having completed the work as outlined above, the house is now ready for the erection of the frame proper or is in condition to lay over until the following spring. It is always advisable to carry the work to this point if the completion is delayed, that snow may be excluded from the basement.

(To be Continued.)



(Fig. 9)
JOISTS SUPPORT OVER WINDOW



Lamp Shade Making at Home

Pleasing Occupation for Clever Fingers During Winter Evenings

By MARGARET ANN LAWRENCE



A GROUP OF SILK LAMP SHADES, HAND COLORED

IN home furnishing the harmony of the decorative scheme depends quite as much upon the selection and disposition of the smaller effects as upon the general effect of the walls, floors and the larger pieces of furniture. It is not uncommon to find rooms where the general scheme is dignified and subdued except for a discordant note struck by a gaudy sofa pillow, a tawdry piece of bric-a-brac or a ruffled lamp shade of flimsy material. The unity of the well planned room often depends upon the selection of the latter objects, which form a focal point of interest among the other furnishings.

The importance of beauty in the little things of the household with those purely ornamental and those intended for practical uses, is a creed which all masters of the arts and crafts are striving to teach.

With the coming of winter comes the thought of fires and lights and all that goes to make indoor life cozy and comfortable. Whether you are building a

new house, remodeling an old one or just adapting yourself to existing conditions, the problem of illumination of the home thrusts itself in the foreground of your attention. After satisfying the practical demand that you have sufficient light, your next consideration should be that your lighting fixtures be suited to their surroundings, so far as possible in color, design and general utility.

You will study to have the lighting of your home create a definite atmosphere. You can modify the illumination of a house until any effect is secured, be it mellow and soothing or brilliant and stimulating. Never before has there been such a gratifying improvement as of late in lamp and lighting fixtures. The annual crop of department atrocities in flower decorated shade and cheap metal trimmed bases continue abundant—but the buying public are demanding better made, better designed lamps and shades, and craftsmen and artists are working constantly to meet this demand. The making of artistic shades has risen in these days to be an art. To buy these shades in any large shop costs a great deal of money. To make shades equally pretty at home costs much less and the general effect is apt to be more pleasing. With a piece of Japanese bronze, of Dutch brass or a handsome piece of pottery for a base, it is not a difficult problem to design and execute very artistic shades. The base may be fitted up with an oil burner or to be used with gas or electric light. For the foundation a wire frame is necessary. Many of the shops carry them in various shapes and sizes; if not in stock they can order them for you. In case this cannot be done, take your measurements to any wire worker's shop —a florist will refer you to one. Each wire of the frame is wound with narrow strips of silk to correspond in tone with the material used for the shade. These strips should be about one-half inch wide; the raw edge on one side to be turned in. Fasten one end with thread to one of the wires—wind close and firm round and round, adding a new length as necessary. Wind upright wires first—then top, with the bottom last. If one has not the proper color silk, white can always be used, staining with dyes the desired tone.

A very simple shade for a round peach basket frame has the material cut in one continuous strip as wide as the shade is deep, allowing one-half inch top and bottom for a seam, and one and a half the circumference of the lower part of the frame, in length. This is shirred onto a narrow tape or string both at top and bottom and attached to the frame, when the fullness is evenly distributed. A narrow silk braid at the top and bottom makes a neat finish. A thin material should be used as the folds in a heavier fabric would be apt to deaden the light. Soft plain or figured silks, crepes, chiffon and lace give charming effects treated in this way.

A shade equally effective, suitable for a bedroom, is made of figured chintz or shadow creton. The frame is a circular one, having a collar or neck at the top, about two inches deep. Cut a circular piece of the material, allowing a length three or four inches to fall loosely over the lower edge—this gives the effect of a shaped ruffle. Fit it to the frame, and seam at the side, then fasten securely to the wires at neck. A braid to cover the joining at the collar and a fringe for the bottom to harmonize, adds a nice finish.

For the woman who can use a brush, in stencil and free hand work, there is no limit to the beautiful shades she can make. Linen, silk, Japanese grass cloth all take color so well that it is a joy to work with them.

A gorgeous shade recently shown in one of the large shops, and held at a fabulous price, could easily be duplicated at



LAMP SHADE OF LINEN AND LACE

home, even though one had very little knowledge of painting. The wire foundation, a large circular shape had all wires neatly covered. The foundation was a brocade silk with a graceful design of poppies and their leaves. This could be white or any light shade. Cut a paper pattern first, then the material, as this way sometimes prevents mistakes. If the goods is not sufficiently wide, join with seam on outside at one of the upright wires. Stretch well over frame and catch at frequent intervals the cover to frame, with pins, at top, bottom and side wires. With strong thread go over all wires with a close over and over stitch. As the material stretches the pins will be found very useful in preventing wrinkles. It may be found necessary to go back over the wires a second time, but be quite sure the covering is taut and firm as the appearance of the finished article depends largely upon this. Have the silk go under bottom and top wire, leaving the raw edges on the outside. Now decide on the color scheme. The poppies can be a soft dull pink—leaves a silver green, with the background brought into harmony with a wash of pale gray with a touch of the pink to brighten it. With dyes or oil paints work out the design, making tones very light in first wash. This gives one a chance for deepening petals and leaves, giving the effect of shadows, but do not try for too much detail. When the shade is dry all the raw edges are to be covered. A galloon in gilt or in a color to match the decoration can be sewed on, or a raised paste in color or in gold can be used; this last is found on most of the expensive shades, seen in the large shops. The formula for the paste is plaster of paris ¾; whiting ¼; mix while dry. Put into a heavy glass or bowl, wet with cold water until the consistency of pie-crust. Then with Le Page's glue thin until like icing and will drop from brush. Do not mix a large quantity as it hardens rapidly and would be useless. Now with a camel's hair brush, No. 5 or 6, run a line along each wire; this should be fairly heavy, half the size of a lead pencil. It is wise to experiment a bit before trying on the shade. This paste may be colored black with powdered lamp black or various light colors with oil paints. It may be entirely or partly covered with gilt or silver, using the powdered color sold for that purpose.

The shade described had a nile green paste, flecked deeply with gold. Let the paste dry thoroughly. A bead fringe in pale green was sewed on bottom edge before applying the paste.

A shade covered in the same way but with white china silk has a dainty semi-conventional landscape in various tones of brown, a faint line of black outlining the tree trunks. Water-proof India ink is used for this.

Small shades for a desk light or an electric drop has six inch deep six sided wire foundation, covered with pale green

silk and decorated in roses and their leaves. Fine copper or brass chain is fastened to frame at three points and joined together with a brass ring. This can be fastened to fixtures or to a brass arm extending from wall.

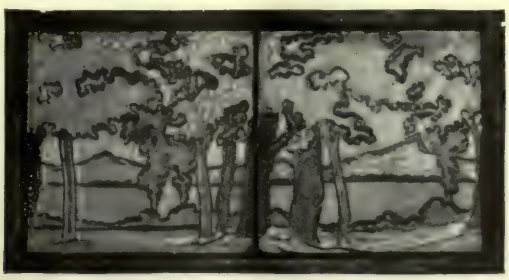
For the woman who does stencil work, these same materials may be used. As a rule it is best to apply decoration to the frame after it is covered. An all-over pattern, a border, or a conventional motif can be used, influenced by the base to be used and the room for which it is intended. For one who does fancy work charming results are to be had likewise.

A shade of ecru linen has a conventional design embroidered in soft gray green, dull yellow, orange and old blue. In this case the shade is fitted and embroidered before being fastened to frame. She can also combine some of the coarser laces with linen or silk of the same or contrasting shades. The one illustrated is of cluny lace, deep ecru, with four circular inserts of linen the same shade. These may be stenciled or embroidered with very little difficulty. It will be found easy to stencil or do free hand work on silk, providing one remembers always to use as little pigment in the brush as possible to prevent spreading. Sometimes the designs may be shaded, which will add to their attractiveness and give a little variety and interest to some of the simple flower designs. When shading begin with the part of the design which should be darkest and work most of the color off the brush, and use less and less toward the lighter parts.



LAMP SHADE OF FIGURED CRETONNE

Pretty and inexpensive shades for the summer cottage can be made from a roll of wall paper. A flowered design on a light background in colors to suit the room will be found effective. Cut off the little border that has the number of pattern and maker's name and then fold the paper in accordion pleats about one-half inch deep. When enough has been pleated bore a hole in one end and run a gold cord through. Tie the cord securely around the top of the wire frame and adjust the pleats to fit. Japanese grass cloth stenciled may be treated in this same way.



Evolving a Scheme of Decoration

By ARTHUR E. GLEED

(Drawings by the Author)

"I WANT to have my private sitting room decorated," said a lady the other day to a friendly decorative artist, "but I am afraid to venture on any other color than my favorite brown, for fear I come to grief. Can you help me?"

"Why brown?" said the artist. "Isn't it rather a dismal color, especially when it has become a little worn. Green is a more cheerful color, if it is wisely chosen in its warm, sunny shades."

"Yes, I like green, but I think it is rather overdone lately, and I have been reading Max Nordau on Degeneration, and he says that a love of green is a sure sign of degenerate madness."

"Yet you like it!" replied the artist. "No doubt you like it for the same reason that children like to play in the green woods, and men will work harder to make a green lawn than anything else, and women choose ferns and palms for the house, and Longfellow wrote 'The green trees whispered low and mild.' It is Nature's own background for her endless pageant of color, and therefore cannot be degenerate, and it is only overdone when it is used by those lacking in true color sense. What is your favorite flower?"

"Aren't you changing the subject rather abruptly?" said the lady.

"No, the subject is the same, a color scheme for your room."

"I don't think I have one favorite flower. I like those varieties of nasturtiums having shades of flesh-pink deepening to russet, chrysanthemums which combine pale tan with deep maroon, the whole gamut of autumn tints from gold to crimson brown, and the most charming color combination I ever saw was creamy tea-roses and red brown wallflowers worn with a gray green velvet gown."

"That will do, thank you," smiled the artist, "you have evolved your color scheme of decoration. It is any or all of the graduations of tints in the flowers you mention, with soft green as a contrast and supporting color."

So the work on the room was begun. First the walls were divided into two parts by a narrow shelf, to be used as a picture shelf. This was placed five feet from the floor, and the wall space above it and also the ceiling were tinted pale buff color. Below the picture shelf the walls were divided into panels eighteen inches square, and below them was a panelling three feet wide reaching down to the skirting board. The small square panels were tinted buff of a slightly deeper shade than the upper wall, and they were also decorated with a stencilled design of nasturtiums. Two designs used alternately prevented any monotony, and the coloring graduated softly from the background in shades of deep buff and russet for the blossoms, and yellowish green for the leaves and stems. The panels beneath this were painted a dull copper color. At first burlap was suggested, but it was thought to hold dust too freely, and as the walls were rough sand finished, dull surface oil paint was used and gave an equally soft effect. The wood used for the panelling was oak, three inches wide, and given a slight green shade with stain, and then wax polished to a mellow surface.



THE MANTEL OCCUPYING THE WIDTH OF THREE STENCILLED PANELS WHICH, WITH THE ONE OF EXTRA HEIGHT AT CENTRE, FORMS THE OVER MANTEL



THE SHELF AND STENCILLED PANELS DIVIDING THE WALL SURFACE, STAINED GREEN IN HARMONY WITH WRITING TABLE AND HANGING CUPBOARD

The oak mantelpiece received special treatment, it being made of a width to equal three of the stencilled panels. The center panel was made twice the height of the others, and the three then formed an overmantel which was pleasing and harmonious as it became one with the general decoration of the room. The center panel was filled by a decorative arrangement of gold and copper colored chrysanthemums on a buff background, and to its wooden framework was fitted two hanging electric lights, shaded with amber glass bead shades, thus making the fireside practicable as a pleasant place for reading.

All the fixed woodwork in the room was stained slightly green and a dull wax finish. The furniture was of the same wood and was square in design but slender in form. Some pieces were polished their natural color, whilst others were given a faint green tint. A writing table was supplemented by a horizontal hanging cupboard fixed to the wall, and fitted with a lock and key it made a convenient place to store letters and stationery. The picture shelf was found to be a good idea in this room, as no large pictures were used, and the shelf made it very easy to dust and rearrange them.

Draperies of plain sage green silk were used, and those at the window reached only to the sill, and were lined on the side exposed to the light with buff colored sateen. They were also decorated with a broad band of tan colored silk, faintly stencilled with a chrysanthemum design, in shades of green and copper color to match the overmantel panel, this decoration being placed near the bottom edge of the curtain. The cushions used aided the general scheme by their coloring, one of soft green silk being embroidered with a conventional design of Iceland poppies in dull terra cotta whilst another of cinnamon colored corduroy was left plain because of its beautiful surface. For the metal fittings copper or bronze was used, and pottery, such as flower vases and jardinieres were chosen with a dull green surface, or in shades of old gold or russet. They were mostly plain, for it was considered better to have a good plain surface than introduce some jarring note of color or design.

"I like my room," said the lady, when the workmen's chaos was gone and order restored. "I can see now how well my favorite nasturtiums will look in such a setting as this. In the spring I can have Iceland poppies, and in the fall whole branches of autumn leaves, and I must see that we grow all shades of golden brown chrysanthemums, for they will look more beautiful than ever here."

"I see you are on the right path," said the decorative artist, "for a scheme of color owes half its charm to varying surfaces, and is never more beautiful than when the tints of walls, woodwork, and textiles are repeated in the delicate surfaces of leaf and blossom."



An Inexpensive Home for a Bride

By MRS. KATE RANDALL

(Photographs by the Author)



THE RUSTIC EXTERIOR, STAINED BROWN, WITH WHITE TRIMMINGS

THE modern "bungalow" has been so commonly exploited, that one is almost weary of the word bungalow, but the house illustrated, though one of this much discussed family, is so fascinatingly different, that I cannot resist describing it, as an example of what a really charming little home a young man may secure, if he has the time and inclination to put himself into the planning and building. Our young people had but $2,350 to spend on the house and furnishings too, and of course it was necessary to give every part of it the closest attention, in order to keep within the sum set aside, but the result is very successful. The house itself cost $2,100 and the furnishing $250. The exterior is rustic, stained brown, with white trimmings. The foundations are brick, but do not show. The cobble stone work about the porch is exceedingly artistic and one of the features which give the house its individuality, and the Japanesey swing to the roof is also most unique.

The interior is plastered throughout and well finished, though very plain. As the floor plan shows, there are practically five rooms, but the owners decided they could get more comfort out of the one large combination living and dining room, than from the usual two small rooms and the conventional arch dividing them, though really securing no more privacy. They have a large screen which can be set before the dining table, when

they wish such privacy, and put aside later, when they wish to enjoy their large, comfortable living room. But habitually, when they are alone, their dining table is spread in the charming little glass porch at the back of the home, in the midst of the roses and restful greenery of their pretty garden.

The walls of the living room are covered with a leather brown burlap, below a rather high plate rail. Above this, the rough plaster is tinted a brown to harmonize. The woodwork, too, in this one room is stained a brown to which was added a slight tint of green. This stain contained plenty of oil and was wiped off as soon as the desired depth of color was obtained. It was then left just in this condition without varnish. The soft effect is very good, and at any time, when the present fancy for dark woods has passed, it may be easily painted. All of the other rooms, and the kitchen, are white. The bedroom walls are very simply papered. The front room a soft shade of pink, which combines well with the browns of the living room, and the back bed room Dutch blue. The walls of the bath and the kitchen have an Alpine waiscoting, white, and above this the walls are painted a light blue. The plain walls are an exceedingly pretty background for blue and white linoleum and the short Japanese cotton curtains of blue cherry blossoms on a white ground.

The living room is furnished largely in wickercraft. The easy chairs with cushions of bright India cotton. Under the dining table is a large rug of body brussels, soft shades of brown and cream. Small Oriental rugs are used where they seem needed. The curtains are homespun Russian crash, finished with a narrow hem and stenciled border of brown and green. The same material forms the scarf for the large table.

A dark wood screen is covered with the same gay India cotton as the chair

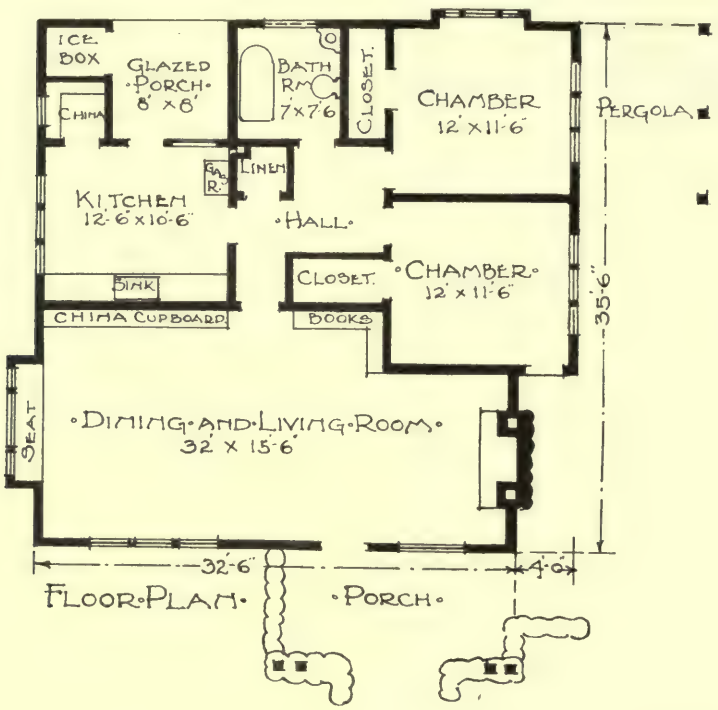


DETAILS OF PORCH, CHIMNEY AND WALL

cushions. This bit of brightness gives tone and character to the otherwise subdued shadings of the room. All this sounds very expensive and extravagant, but is really not so at all. Nothing is as durable as body Brussels and exceedingly pretty Oriental rugs can often be had for $7 or $8 each, and will outwear half a dozen domestic rugs. Then, too, the dining table and chairs, a small desk and all the bed room furniture was bought at the factory unfinished, ready for the very cheap varnish. They probably cost the same as those cheaply varnished horrors, but finished at home they were a joy forever. The dining room pieces were stained the same time as the woodwork, and the bedroom furniture was all paint-

ed white by the owner at odd moments. Quaint little hardwood chairs with braided hide seats were found for not over $1.00 each and were also painted white. They are very light, comfortable little chairs. Small Wilton rugs in shades of pink were used in the front room and blue and white rag rugs in the back room and inexpensive dotted swiss curtains in both of these rooms.

Department stores are most fascinating places for the lady who must economize. Here she found pretty dishes and comfortable bedding, and the original sum of $23.50 set aside was not overdrawn.





LIVING ROOM FINISHED IN DARK STAINED CURLY FIR



LIVING ROOM IN BURNT CURLY FIR, NATURAL COLOR

Designs for the Home-Builder

THE designs for this month are of unusual interest owing to the variety of style and excellence of plan. The cement houses are quite different in their treatment yet very effective. The bungalow types shown are of the picturesque order such as fit admirably into the suburban landscape. The cottage designs are attractive and well arranged and the square shingle and brick house would make a plain but cozy home. At this time plans should be selected that an early start may be made in the spring. To be behind with one's preparations means a loss of time and money. Early prices are always easy but stiffen materially when the rush comes.

Design B 206

A pretty picturesque bungalow suitable for any climate. Clapboarded to the top of the windows and painted white, with gable ends of brown stained shingles and brick chimney and foundations. The simple roof lines and hooded porch give a restful homelike air.

A large living room with fireplace at one end, a dining room and a convenient kitchen constitute the living portions of the house. Bedrooms, bathroom and stair to second floor are off a small hall accessible from living room and kitchen. Both bedrooms and hall have ample closet space and the second floor is finished in one large room, but could be divided into three chambers if desired. Finish, oak and pine with hardwood floors. Hot water heat. Estimated cost, $2,650.

Design B 207

This house with its expanse of high pitched tile roof and cement walls expresses the newer thought in design. The porch of simple detail and wide entrance gives an appearance of hospitality. Reception room, living room and dining room have beamed ceilings and are splendidly arranged. The fireplace opposite the entrance door is a very effective feature.

Special attention is called to the arrangement of the side entrance and combination stair, giving access to kitchen. The laundry on the first floor is a great convenience. There are four chambers on the second floor with ample closet space and a large bathroom, all finished in white enamel with birch floors. English oak quarter sawed with oak floors is used in the principal rooms of the first floor. The kitchen portion is in birch. Main dimensions, 39 feet by 31 feet, with projections in addition. Hot water heat. The cost is estimated at $7,600.

Design B 208

This cottage design for a warm climate without basement and with shingled exterior, is estimated to be built exclusive of heating and plumbing, for $3,000. The design is well adapted to a warm climate and with a good basement would be equally good for a cold climate. The average size of the main floor exclusive of the main piazza is 32x30 feet, the height of the stories, 9 feet and 8 feet 6 inches. One leading feature different from many designs, is the central entrance and hallway leading direct from front to rear and both doorways opening on to screened piazzas; this will be found to be very pleasing in warm weather, allowing free circulation of air through the center of the house.

The large living room on the left is cut off in octagonal form at the corners,

giving fine outlook, plenty of sunshine and good ventilation to the main living room, which is 12 feet 6 inches by 19 feet. At the rear of this room and connecting with it through a wide columned archway is a den alcove with seats on either side and windows at the rear, with central glazed doorway opening on to the screened porch; this feature is a very pretty device in connection with the main living room. The dining room opens at the right, opposite the living room, 12 feet 6 inches by 16 feet and connecting through a passage-way with a kitchen at the rear and recessed china closet and pantry shelves between. These two principal rooms and hallway are finished in Washington fir or hard pine stained and a good hardwood floor to correspond. The second floor comprises four good sized bedrooms, each one provided with a large clothes closet; the stairway of the first story landing in the center of the second floor, making a very symmetrical and convenient hallway opening with windows and glazed door on to a rear balcony, the second floor finished in natural pine, with hardwood floor.

The exterior of the house is designed to be shingled throughout. It would also look very well if the gables were finished in rough cast cement on metal lath; this would add slightly to the cost. In painting this house, a good suggestion would be to stain all of the shingles on the first story a light cream color, making the shingles on the roof dark green and the shingles in the gables light green and all the sash white.

Design B 209

The style of architecture is that of a low cottage, obtaining its effect by the eaves of the large gable coming down below the ceiling of the first story. The spacious porch lends much to the coziness and comfort of the moderate cost cottage of today, doing away with the cramped appearance seen in so many city cottages and even seen on the rural houses where there is nothing but a stoop before the front entrance.

The drawings provide, and the same is included in the estimated cost, for a full basement with either an 18-inch stone or brick foundation wall, concrete cellar floor, outside cellar entrance, hot air heater, ash pit and fuel bins. The outside walls are sheathed, papered and sided except the dormers where, instead of siding, shingles are used.

All outside walls are back plastered and face plastered, all face plastering being two coat work. Under floors are included on both floors and hardwood floors for the kitchen, dining room, hall, bathroom and upper hall.

Finish is of pine, cypress or poplar.

Width, 32 feet; depth, 32 feet; basement, 7 feet; first story, 9 feet 9 inches; second story, 8 feet 9 inches; lowest height second story, 6 feet 6 inches. Estimated cost, $2,600.

Design B 210

The lot for this house was rather unusual, resulting in a plan along different lines. Note how close the front and rear door are to each other on the plan, yet how skillfully the architect has disguised this fact on the exterior. The living room is a splendid room containng a fireplace, seats, etc. The dining room is at the rear and overlooks the valley below. The den affords privacy and has a flower window with wide ledge. The kitchen and pantry arrangements are admirable. On second floor are three chambers, alcove, sleeping porch, bathroom and storage. Finish, oak, fir and pine. Hot water heat. Exterior of brick and stucco on metal lath. Size, 40 feet wide by 27 feet 6 inches deep.

The cost was as follows:

Stone and excavating.....	$316.00
Cement floors	70.00
Brick work	244.00
Lumber and mill work.....	1,125.00

Plastering	348.00
Plumbing, heating, and galvanized iron work	295.00
Painting and tinting	210.00
Electric wiring	50.00
Carpenter work	650.00
Hardware (shelf)	50.00
	$3,358.00

Design B 211

The footings, foundations and outside walls are to be of monolithic concrete construction, with steel bar reinforcing over all openings and where elsewhere required.

The outside walls above grade to have outside facing material composed of one part Portland cement and three parts crushed red granite (plastered direct against inside of forms); trimmings of same proportion, but using crushed gray granite, all backed with coarse concrete, composed of one part Portland cement, three parts clean sharp sand, and four parts broken stone. After the forms are removed the outside face of walls to be treated with acid preparation, thereby removing surface cement, exposing the particles of granite, and producing a pleasing texture and color.

The main cross partition back of living room is the bearing partition, extends from foundation to attic floor, and shall be reinforced, leaving necessary openings in basement partition for proper subdivision. The balance of partitions to be of solid concrete, or blocks, and rest directly on the floor construction; under these partitions and at the basement ceiling reinforced concrete beams will be placed and supported on concrete piers. The minor partitions may be of plaster on metal lath and metal studs, or solid plaster.

The floor and roof construction to be of reinforced concrete, roof covering of tile.

The veranda, terrace floor and steps will be of concrete. Estimated cost, $7,925.

Design B 212

The porch and pergola effect of this bungalow is very charming, but for purposes of economy the pergola has been omitted from the working plans. The body is of shingles, stained, with white trimmings. From the porch, entrance is made to a reception hall containing coat closet and a seat. The living room is reached through a wide opening with a brick-faced fireplace opposite. A columned opening communicates with the dining room, which contains a sideboard. The kitchen is conveniently and completely fitted up with ice box served from the entry. A private hall gives access to two chambers and a bathroom with linen closet. The finish and floors are of Georgia pine, stained.

The height of the story is 9 feet 6 inches. There is no basement and no heating plant, but same could be provided if desired. The width is 30 feet 6 inches and the depth 34 feet, exclusive of projections. Estimated cost, $2,485, completely finished with plumbing.

Design B 213

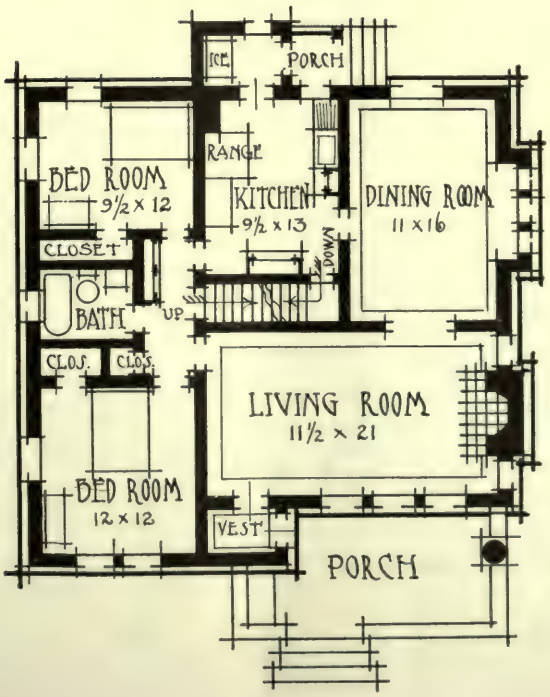
A house of brick and shingle exterior with a simple hipped roof. The roomy porch opens directly to the reception hall on either side of which is den and living room. The kitchen is reached through the telephone booth or through the pantry from dining room. This latter has a beamed ceiling and attractive windows making it a very handsome room. A refrigerator and cupboards are located in the rear entry. On the second floor are four chambers, a dressing room, bathroom and a balcony. Finish of first story is in Oregon pine. Second story in birch and white enamel. In the basement is the laundry, fuel bins and hot water plant. Size, 36 feet by 36 feet. The architect's statement of cost is $5,000.



John Henry Newson, Architect

A Pretty Picturesque Bungalow

DESIGN B 206

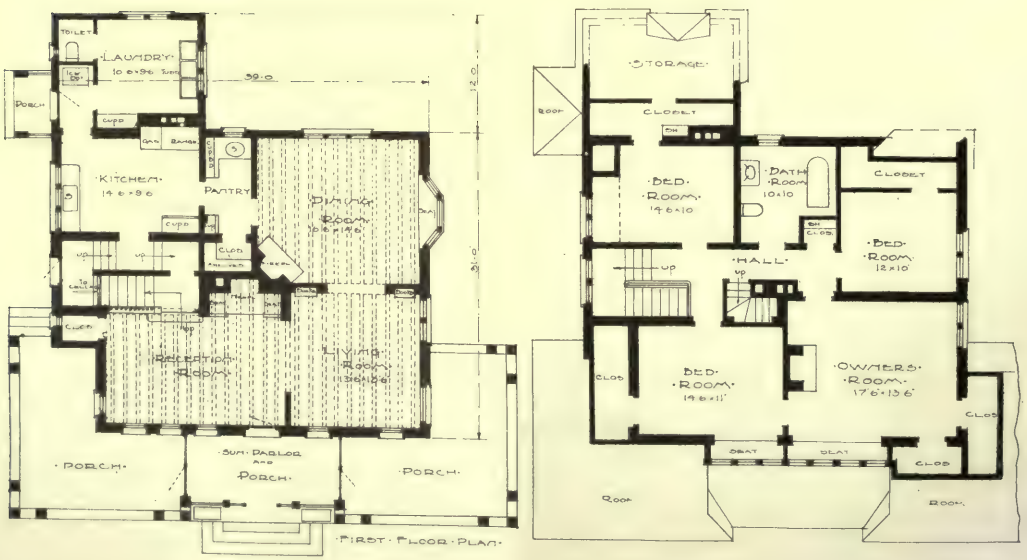




Squires & Wynkoop, Architects

Cement Construction with Red Tile Roof

DESIGN B 207

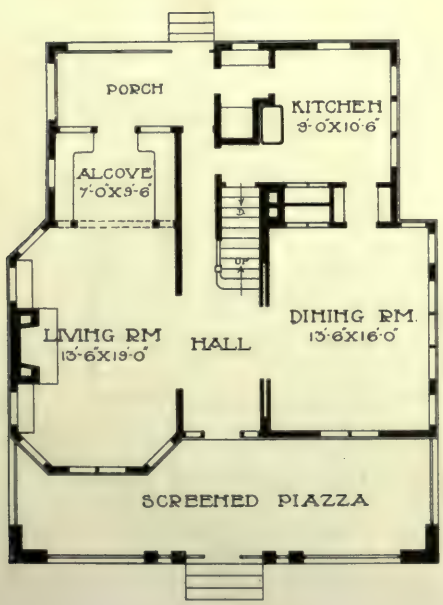


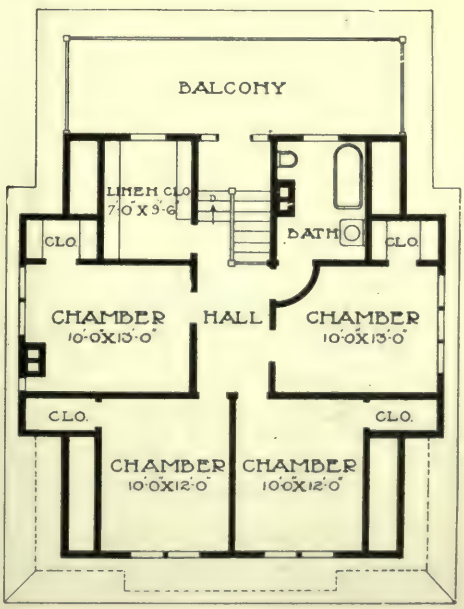


Chas. S. Sedgwick, Architect

A Charming Home in Cottage Style

DESIGN B 208

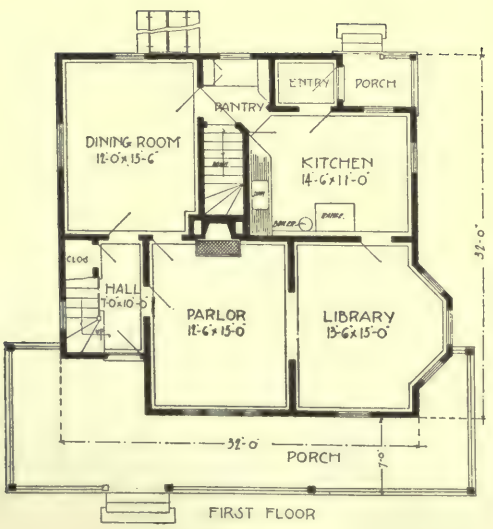




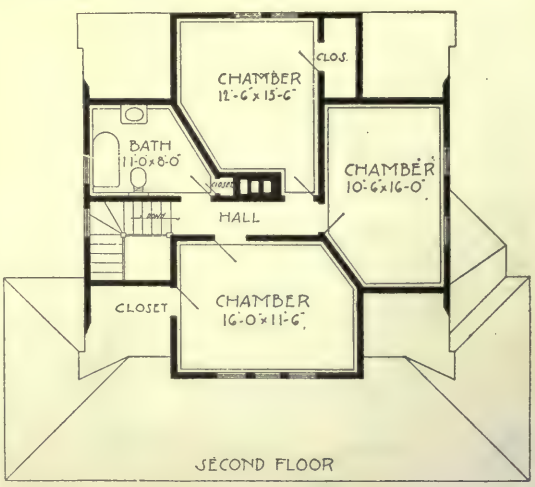


A Spacious Porch Lends Coziness

DESIGN B 209



DESIGN No 529.

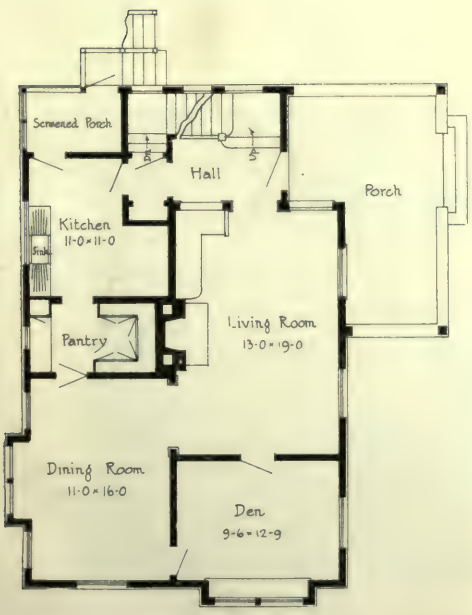




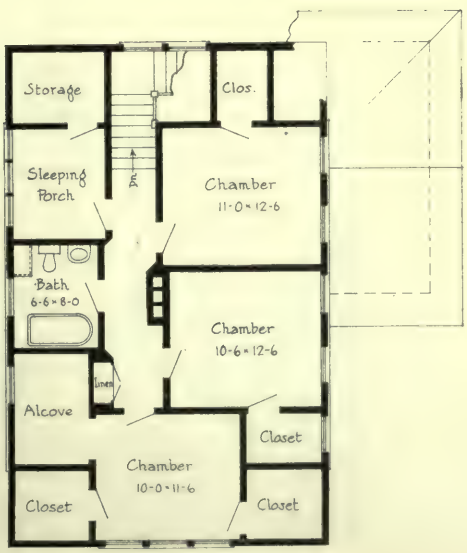
A. E. Saunders, Architect

A House for An Unusual Lot

DESIGN B 210



·First · Floor·



·Second · Floor·



Courtesy of Universal Portlsnd Cement Co. Henry Wittekind, Designer

A Suburban Concrete Residence

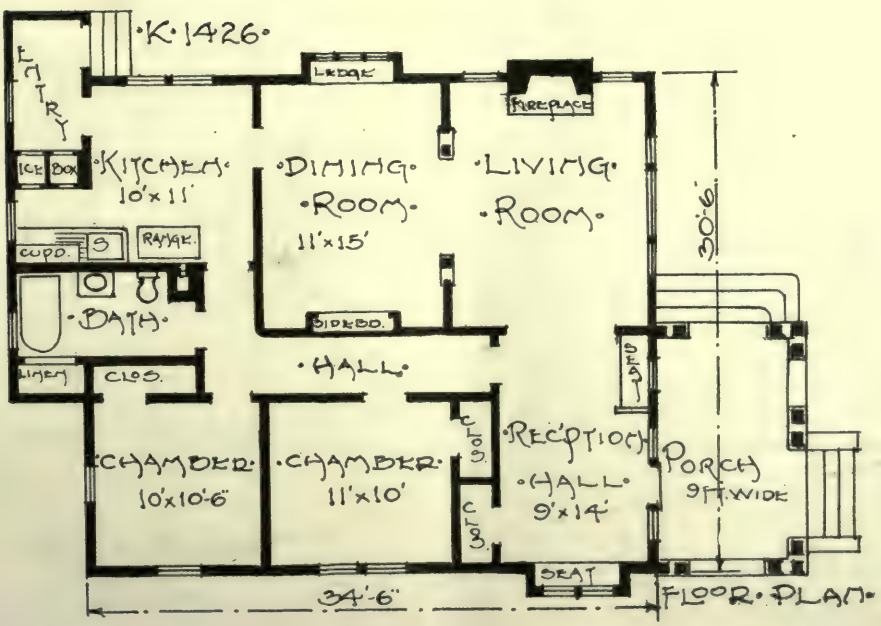
DESIGN B 211





Charming Effect with Porch and Pergola

DESIGN B 212

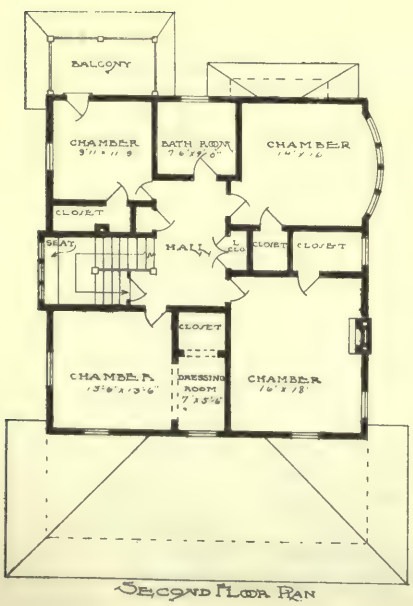




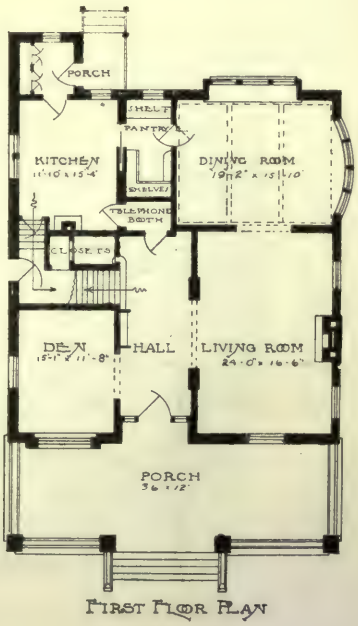
F. E. Colby, Architect

A Brick and Shingle Exterior

DESIGN B 213



Second Floor Plan



First Floor Plan

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The Reappearance of Gray.

SOME of us are old enough to remember when a delicate tone of gray was considered a very refined finish for walls. It was an uncompromising shade with a purplish cast quite guiltless of the subtle modifications with yellow, pink, or blue of the modern decorator. It was glaring in sunlight and cold in shadow, but it was not unpleasing and it harmonized well with the steel engravings and flowered china of that far-off day. It was definitely preferable to the dingy brownish yellow of the grained papers or to the dark chocolate and garnet which were supposed to be very rich in effect.

Now, after many years of disuse, gray is coming to its own again. We find it in shimmering grass cloth, in shadowy tapestry papers, as a groundwork for a criss-cross of black lines in the best work of German color printers, and in delicate papers copying accurately the finest French brocades. Perhaps the great vogue of the concrete house has had something to do with it. Be that as it may, it is becoming more and more popular, by itself and in combination with positive colors.

The best tone of gray for decorative use is one with a slight admixture of yellow, the soft shade which we call putty color. Unlike the grays which have a purplish cast, it is unchanged by artificial light, and it combines admirably with everything but a blue lavender, the latter a color which is seldom advisable for interior work. There are pinkish grays, but they are open to the objection of looking, in fabrics at least, as if they were made for millinery purposes. Not everyone realizes that the color gamut of dress goods and decorative fabrics is an entirely different one.

Gray Grass Cloth and French Tapestry.

Take the small reception room of a city house, a room whose purpose is a purely formal one, whose dimensions are limited. Premise white woodwork and a small Persian rug in tones of rose, ivory, green and blue, a very ordinary combination. Cover the walls with gray grass cloth, carried straight up to a white ceiling with an eighteen inch drop. Cover the furniture with a French tapestry with a grayish white ground and small set floral pattern. With plain net curtains against the panes have straight hangings at either side of the upholstery fabric. Range a few pieces of delicately colored china on the white mantelpiece, wood or marble, under a white framed mirror. If you have mezzotints or old prints in gilt frames hang them here, if not leave the walls quite bare. You will have room quite unlike the one next door and with a refined and individual charm of its own.

For Mahogany Furniture.

Suppose you are the proud possessor of mahogany dining room furniture, ancestral or other, and much china and silver. Of the china choose out for display the pieces of one color, red, pink or green. Blue is left out because blue china needs a treatment of its own. Then paper the walls with the gray tapestry paper mentioned above, curtaining the windows with a gray Arabian net, using for inner curtains the predominant color of the china, in raw silk, linen or the French cotton called jaspe. Repeat this color in the rug, possibly in the leather seats of the chairs.

With Flowered Cretonne.

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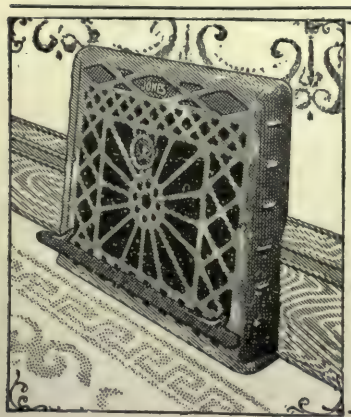
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clever arrangement of black lines of varying thickness on a pure white ground. This is the ideal background for flowered cretonne furnishings. The best shops show it in connection with cutout borders, charming arrangements of festoons of roses tied with knots of blue ribbon. And while on the subject one wishes that the makers of cretonnes would revive the gray grounds which were used a good deal by French designers twenty-five years ago. Unless it is unusually well covered, the average cretonne soils very quickly. This is lamentably true of the repped ones which are shabby long before they have begun to wear out.

An Agreeable Surprise.

Not long ago the decorator had the pleasure of having her apartment redecorated. For many months she had groaned under a red dining room paper and a green paper for the living room, which had a set figure of so aggressive a character that the only possible thing to do was to hang a great many pictures and conceal just as many figures as possible. She had planned to have the two rooms papered alike with a deep drop ceiling and a two-toned paper of conventional design in a warm golden brown which would be harmonious with the excellent cherry woodwork. But the tenant proposes, the landlord disposes. The allowed price limit could not be stretched to cover the desired paper, and the painter announced that a kalsomined ceiling was an impossibilty, as involving much expensive pointing up. The side walls might be anything one chose, but ceiling and drop must be ivory white moire paper. That was final.

After much consideration the decorator compromised on a coffee colored cartridge paper, as being at least unobtrusive and not impossible with her many green possessions. Alas for the vanity of human expectations! Once laid the cartridge paper proved to be not merely tolerable but quite the best thing that could have been. It brought out the color of the woodwork and, although it had looked cold when seen in the shop, it was, when suffused with sunshine, delightfully warm in tone. Nor was this all. It proved to be a perfect background for a number of engravings and etchings framed in golden oak, which had been distinctly not at home against other wall papers, as well as exceedingly friendly to blue china. Nor was the moire paper objectionable. The rooms were rather unusually high for their other dimensions, and the effect of the slight pattern of the paper was to lower the ceiling to just the proper height. All of which goes to show that in decoration, as in other human affairs it is sometimes the unexpected which happens.

A Basement Breakfast Room.

In houses of the type common in many of the eastern cities, the basement dining room is often disused in favor of a rear room on the main floor, and degenerates into an annex of the kitchen, and ultimately into a general rubbish room. A better use for it is as a breakfast room. People who have tried the plan find it a sensible saving of labor for the servants, especially if the family is in any way irregular, also find it convenient to extend its use to the service of the luncheon or midday dinner of the children of the house.

When the room is a long one, it is an improvement to screen off the rear end, setting the table close to the windows, so as to get the advantage of the early morning light. It may well be furnished differently from the conventional dining room, as there are no ironclad traditions as to breakfast rooms. As the furniture will probably have descended from a better estate, it might very well be stained green, the table used bare, with doyleys and a centerpiece of ferns. With the walls tinted a warm tan or a light shade of citrine, there might be curtains of an English chintz in green and yellow, the same chintz covering a high screen and a big chair in which to read the newspaper while waiting for the rest of the family. It is a plan worth considering from a number of points of view.

Making a Settle.

When a wooden double bed goes out of commission, no one will buy it and it seems a pity to split it up for kindling wood. But it makes a capital settle, if it is one of the sort which has a straight line across the top of the headboard. The

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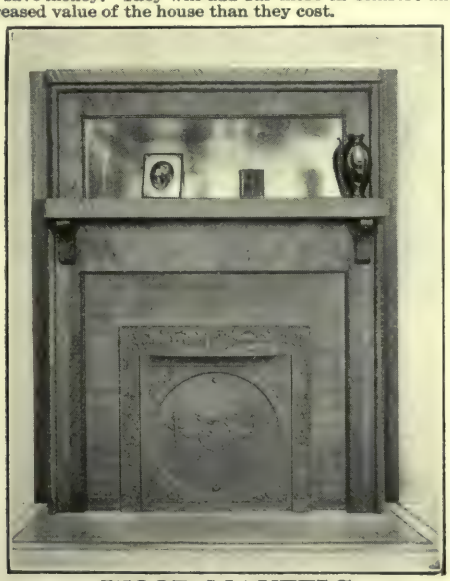
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upper part of the headboard forms the back of the settle, the end pieces can be cut from the sides of the bedstead and the footboard furnishes the seat. The elaboration of the construction depends upon the skill of the maker, but it ought not to be beyond the power of a boy who has taken a course of bench work in a Manual Training School, to make a very creditable article indeed. With a large proportion of such beds, the first thing to do is to remove the excrescences in the shape of glued on ornaments, which disfigure it. Some of these wooden beds have inserted panels of incised pattern which can be made quite effective by being treated in polychrome, with stain or paint.

Driving through the towns along the coast of Maine one sees everywhere on the lawns settles which have been made out of the roll top maple bedsteads, once seen in every farm house bed room, and some of them show a great deal of cleverness in adapting the various parts of the old piece to the needs of the new.

Interesting Electric Lamp Shades.

I believe the proper term is "a portable." At least that is manufacturer's English. Of these there is an endless variety, most of them open to the objection that however beautiful in themselves, they obscure the light so much that the room is painfully dark. There are of course exceptions. Some of the very best are of a sort of corrugated glass, slightly irridescent, of amber tone. These shade the electric light without dimming it unduly. Often the shape of the shade is more at fault than its color. It incloses the bulb so completely that the light is greatly diminished.

Some very beautiful shades are in landscape effects. For instance, a six sided one has panels of painted glass in the vivid colors of a sunset sky. Against these is silhouetted the outline of a single stone pine, fashioned from dark metal and applied to the glass. Another has a sort of Japanese fretwork design of metal applied to the colored glass.

While the bulk of the shades shown for electric lights are of richly colored glass, there are many of pale colored silk veiled in chiffon or lace, with some very effective ones of wicker with panels of brilliantly colored cretonne. The Geisha shades would seem to have lost some of their popularity, but the Oriental shops show a good many shades of woven wistaria fibre with colored linings of silk or grass cloth.

Cane and Oak.

There is a general revival of the extremely high backed chairs and settles of the Jacobean period. Many of these are made with cane seats and backs and, if the piece is a settle, the back is in two or more sections. The canework is stained brown and the oak of the frames is also brown of a rather grayish tone, a little lighter than fumed oak, while the finish is absolutely dull. A typical settle of this sort has a back in two sections and about three and a half feet high. It costs fifty-two dollars.

When furniture of this sort is upholstered, tapestries or figured velvets in large patterns and low tones are used, put on plainly, finished with large nails. It should be needless to say that pieces of this sort demand a setting of their own, and do not "compose" with the miscellaneous furniture of most houses. They are meant for wainscoted rooms, or panelled halls, and are most effective in their proper surroundings.

Turkey Red and Java Print.

Turkey red, a bit overpowering by itself, is most effective when combined with Java print in strong colors. A single print curtain will go a long way in bordering covers, edging curtains and striping bedspreads, in combination with a plain color. Some of the prints tone in well with old fashioned blue denim, not the art denim. Furnishings of this sort are effective in a dimly lighted place like an upstairs hall. These corners of the house are too often neglected, yet their very limitations are often suggestive in the hands of the one who knows how.

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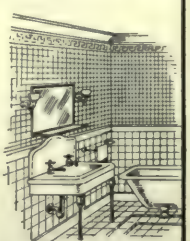
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ANSWERS TO QUESTIONS
ON INTERIOR DECORATION

Editor's Note.—The courtesies of our Correspondence Department are extended to all readers of *Keith's Magazine*. Inquiries pertaining to the decoration and furnishing of the home will be given the attention of an expert.

Letters intended for answer in this column should be addressed to Decoration and Furnishing Department, and be accompanied by a diagram of floor plan. Letters enclosing return postage will be answered by mail. Such replies as are of general interest will be published in these columns.

J. A. H.—I am enclosing a floor plan of the house and would like your suggestions on color scheme for both exterior and interior finish. Outside walls are to be of a light cream brick with the natural gray cement foundation, cement sills and lintels, and cement block corners. Would either a slate or a dark red roof harmonize and what colors would you suggest to be used with each?

As to the interior all rooms will have a nine foot ceiling and will be finished with Oregon pine (Douglas fir) which takes a stain very well. I only have furniture for the dining-room which is of mission design and dark weathered oak finish.

I have been thinking of getting mission furniture for the parlor or library also. I have seen some mission furniture with a dark green finish that I liked very well but do not know the name of the finish and have thought of staining the woodwork green thus making green the predominant color in that room.

I have no particular choice of color yet for the kitchen, bath, and bedroom.

J. A. H. Ans.—In reply to your recent inquiry for color schemes, would say that, for such a small brick cottage, either slate or tile roof would be rather massive and heavy. It is suggested to use shingles for the roof and for the gables. With cream colored brick walls, either brown or green in roof and gables would be more pleasing than the dark slate or dark red. However, if the cottage is among trees, a bright red would look rather well. It is difficult to advise without the exterior design.

In regard to the use of a green stain on the living-room woodwork, Bog Oak green would be in harmony with the furniture you suggest. As this room faces southwest, such a treatment would be agreeable. It is possible the stain might have to be modified somewhat on the fir as different woods take color differently. The wall paper used in the room could be a soft, plain gray crepe and the furniture upholstered with cretonne in a deep, strong green and blue design on a gray ground. The effect would be unique and extremely pleasing for a cottage parlor. The dining-room woodwork should be stained brown to correspond with the furniture and the walls done in yellows and browns. Very softly blended tones of these colors are shown in our shops, for such a dining-room.

The kitchen should be given a very light and cheerful wall treatment. Paint the lower wall four feet up, a soft brown; above this paint the wall cream color and the woodwork the same. Put brown and cream linoleum on the floor instead of hardwood. The bathroom too should be all white both walls and woodwork, as the porch will darken it. The bedroom could be done in either green and white or blue and white as you fancy.

I. F. S.—We are almost ready to begin a new home, six rooms, facing west, neither cottage nor bungalow, but a very pretty combination. Living-room 15x21, dining-room 14x16, ceilings 11 ft. Beams in living-room, dining-room panelled, not solid but outlined with strips. Mahogany furniture in living-rom, oak in dining-room, large double doors between. Would like your idea for staining these two rooms, also for exterior painting.

I. F. S. Ans.—In reply to your recent letter would say that it is difficult to give definite advice where plans are still so vague and no idea given of style of house.

In a general way, nothing is better for a cottage or bungalow exterior than brown stains with cream trim.

Also, in general way—nothing is more effective with mahogany furniture, than mahogany stained woodwork for

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living-room with gray walls and either the same for dining-room or silver gray stain for woodwork with old blue between panel strips.

R. L. G.—I would like to take advantage of your Decoration Department, and to that end I enclose a rough sketch of my new house. I would like suggestions for wall paper, pictures, frames, draperies and curtains, and the furniture for first floor. The interior is finished in weathered oak, the second floor enameled white. Have one 9x12 Royal Wilton rug, red, green and brown, mostly red; one 9x12 Body Brussel, red, green and tan, mostly tan, and one 8′3″x10′6″, red, green and blue, Oriental design, blue predominating. Also want to know how to treat the floors which are yellow pine, 3″."

R. L. G. Ans.—In response to your recent inquiry, would say that the rugs described must furnish the keynote in the treatment of these rooms. The 9x12 Wilton will not cover the floor of the living-room 21x14, sufficiently. The best way of using it is to place it in the center of the room and get two long, narrow Oriental runners in similar coloring to lay at each end of it. If you do not wish to go to this expense, then the next best thing is a 6x9 Wilton on the order of the one you have. As the rug is mostly red, we would use a gray fabric paper on the wall and have short draperies of thin red silk or Japanese crepe at the little casement windows, taking care that the red used harmonizes with the red of the rugs. At the large window, use grayish net curtains. The ceiling of this room can be oyster white. Some of the large pieces of furniture could be upholstered in dull red materials.

The dining-room should have the rug in which tan predominates. The curtains could be of ecru scrim. The library can have a gray wall also, with the blue of the rug repeated in the upholstery and side over—draperies at the windows.

It is, of course, impossible to give advice concerning the framing of pictures without knowing what the pictures are. The treatment of hard pine floors is the same as for hardwood.

H. L. S.—I enclose a rough sketch of the floor plans of our new home now just going up, and would appreciate suggesting what finish to use upon the woodwork and what color scheme would be best suited to the conditions, as I will outline below:

We wish the living, dining, parlor and hall to all be finished alike if possible, especially the woodwork. We have already a handsome golden oak dining set complete, also several pieces of oak and leather furniture for the living-room. Our piano and some fancy or rather special chairs are in mahogany.

We can have the dining set refinished in some other finish say Early English if it would help out in the general scheme to make all harmonize, we had thought of fume brown but did not know whether it could be done on yellow pine or birch.

H. L. S. Ans.—In reply to your request for suggestions, your idea of uniform wood finish for the main rooms, is good and a fumed brown will be a good finish to use. Birch takes a very pleasing brown indeed, so does hard pine, though the effect differs somewhat on the different woods even with the same stain. It is advised, therefore, to put all birch in one room, or all pine and not to mix the two woods in one room. The exception we would make in the uniform finish would be the parlor and the breakfast room. We should advise grouping all the mahogany pieces in the parlor, rather than mixing them and staining a birch finish in that room mahogany. Then put a very soft and pleasing pearl gray paper on the wall and use deep rose furniture coverings rug and draperies. This will be excellent treatment for a northeast parlor. Do the walls of the hall in much warmer and deeper two-toned grays, with coppery red rugs and seat cushions. The living-room in greens or green and brown mixed; the dining-room wall ecru, either browns and yellows in furnishing. The stair hall has only indirect light and the walls should be very light. The little breakfast room would be ideal with white woodwork, a deep rich blue burlap dado 2½ ft. high, the wall above covered with a paper having gay birds of paradise among green leaves and larger blossoms on an ivory white ground.

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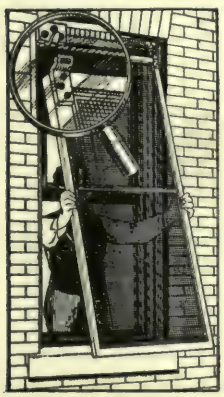
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WE are all familiar with a certain sort of mental attitude, either in ourselves or in others, which accompanies a lowered physical condition. It is the attitude of profound discouragement with the actual situation of our domestic affairs. The trifles which make up the sum total of our daily duties seem a succession of mountains to be climbed though we die in the attempt, and we are quite sure of dying. The weary body reacts on the mind with disastrous results to our happiness as well as to our efficiency. Perhaps half the women one meets have this attitude to their household cares .The daily routine, instead of being instinct with interest, has become a treadmill.

The only way to get rid of an undesirable reaction is to replace it by a beneficial reaction. Since the weary body reacts upon the mind, try letting the buoyant mind react upon the body. It sounds like Christian Science but it isn't, it is only the working out of a principle as old as the association of mind and matter in one body. Now when mind and body balance each other exactly, each doing its own work perfectly, there is no need of any such expedients. The individual is in a state of equipoise, the stable equilibrium of the scientist. It's a case of "the perfect woman, nobly planned." This is the condition that makes life easy, a joy to one's self and to others.

But while it is the ideal condition it is also one very rare in the difficult conditions of modern life, with its many demands. But a workable counterfeit of it is possible, if one deliberately cultivates a hopeful and elastic habit of mind

Just How.

The means to this attitude are not specially difficult. First there must go along with the effort a firm conviction that the mind is the important thing, the dominant factor. The work to be done with the hands is a mere routine and may as well be one thing as another. It is necessary to give to it the barest possible sufficiency of attention, the mind wandering whether it will. With practice this attention becomes a sort of sub-conscious affair, almost mechanical.

But this attitude is not one to be assumed instinctively. One ought to have some definite object upon which to concentrate the attention. We have all of us smiled at the account of the genius who kneaded the bread with a chemistry open at the side of the moulding board, but she was a sensible person. It is a capital thing to memorize a bit of poetry, conjugate a French or German verb, get a Sunday School lesson clearly in mind, or recall the main outlines of a book recently read. None of these things are specially valuable in themselves, but they are all good mental training.

But whatever means is adopted, the great thing is to avoid being obsessed by one's domestic duties. There is an irreducible minimum which the household machinery must turn out, warmth, adequate food, comfortable shelter. These are necessities and part of the decencies of life, but they have many gradations, and it is poor economy to sacrifice better things to the attainment of their perfection. The old type of housewife as haunted by the longing for an impossible perfection, and she has left a good many successors. They need to learn that

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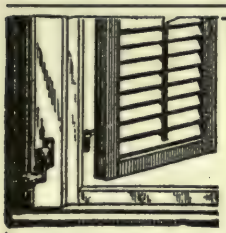
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But, since there are no signs of the appearance of such a creature, the solution of her difficulties seems to be in learning the art of warming up and disguising the remains of large pieces of meat so they that may be at least as palatable as when they made their first appearance. Vegetables can be served in two or three different ways, after the original cooking, with plain butter one night, with a cream sauce the next, as part of a salad or the foundation of a soup later on. One feels like recalling the dictum of the French gourmet who said that the spinach was far better on the seventh day than on the first, as each successive warming up in butter had given it an added richness. She who would cater successfully and economically for two people must needs be a mistress of sauces, a carver capable of leaving the roast in good condition for a second serving, and a nice calculator of the quantity of food required for each meal. But if the problem of management for two be a difficult one, its solution is all the more richly rewarded.

Winter Bedclothes.

Not the least of the trials of extremely cold weather is the necessity of sleeping under a great weight of clothing. It is one of the advantages of living much out-of-doors that one's circulation is so good that one does not feel the extreme of cold. But most people require a great deal of bedding and sleeping under half a dozen blankets involves a considerable expenditure of muscular energy. The silk covered down quilt is ideal for very cold weather. Another covering which is very light is the wool filled comforter. Not many years ago it was only possible to have these by buying the filling in a wool growing country, now they are carried by the better shops. At a lower price are specially treated cotton comfortables which will not mat with any amount of use.

One objection to these comfortables is that like the average ready made sheet, they are too short to tuck in well at the foot of the bed. This may be obviated by stitching a strip of heavy unbleached muslin to the lower end of the comforter. It should be half a yard wide and with its assistance the comforter can be tucked in very securely.

The upper edge of comfortables and blankets, where it is likely to touch the face should be protected by a wide binding of cheese cloth, which can be removed from time to time to be washed.

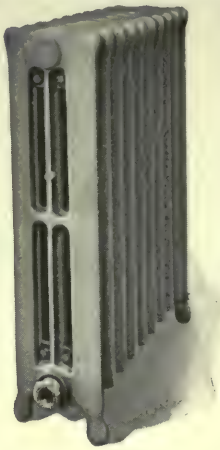
Church and Sunday Dinner.

How to reconcile attendance at Sunday morning services with the preparation of the mid-day dinner, is a question which vexes many servantless households. Perhaps the best way is to get rid of the idea that it is necessary to eat more on Sunday than on week days. If that is not practicable, why not compromise on a solid luncheon, followed later by a substantial supper. Everything necessary for two such meals, except tea or coffee, can be prepared on Saturday, and no one need stay at home from church. It would certainly be a benefit to both Sunday school teachers and scholars, if they did not attack the lesson fresh from the heaviest meal of the week. As for the mothers of families, they would be able to enjoy a small portion of the rest, for which the day was partially ordained.

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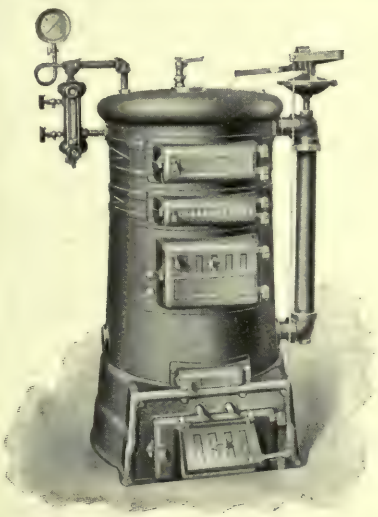
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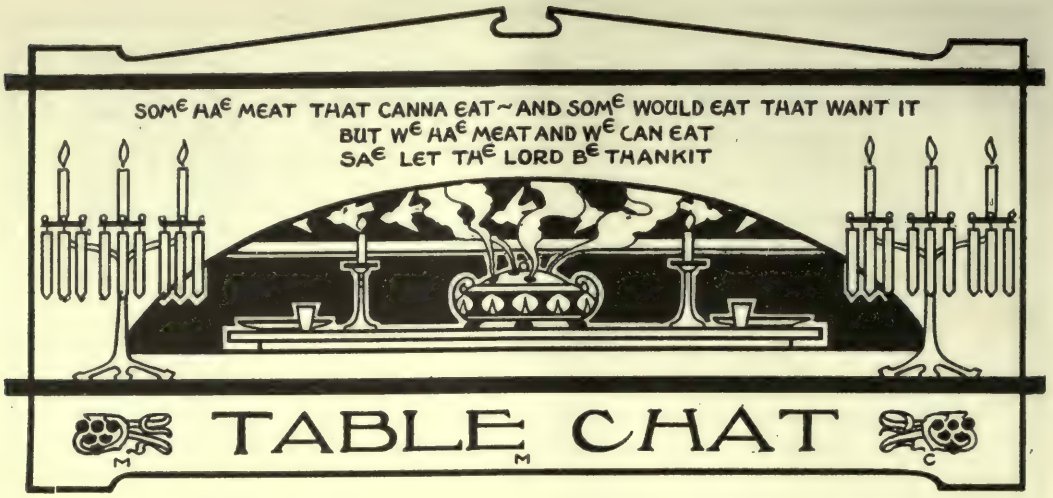
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Twelfth Night.

TWELFTH Night, as it is known in continental countries, is the feast of Epiphany, commemorating the coming of the Wise Men from the East. It is so called because it is the twelfth day after Christmas. Many quaint customs cluster around it, one of them, the eating of the Twelfth Night cake. This is a large and rich cake into which small articles have been put before it is baked, emblematic of various states of fortune, a ring for marriage, a thimble for spinsterhood, a piece of money for wealth, and so on. The cake is cut with much ceremony and a piece given to every one present, the finding of thimble, ring, or money in one's piece being considered prophetic.

Twelfth Night may be made the occasion of an effective costume party. The medieval setting is not difficult to achieve and affords a variation from the patches and powder of the eighteenth century, or the indiscriminate medley of fairies, clowns, columbines and Nights and Mornings so often seen. The Craftsman house with its dark woodwork and heavy furniture is often quite suggestive of the Middle Ages, and a most effective background for the costumes of that period.

Tables, Bare or Covered.

The fashion of the bare table seems to have come to stay. It does not appeal to the conservative, but it has many considerations to recommend it to the economical. Once supplied with the necessary centerpieces and doyleys, it is seen to be a distinct gain not to have large table cloths to launder. The making of the needed pieces is a pleasant exercise of one's skill with the needle and their initial cost less than that of handsome damask. The latter gets very much tumbled if removed from the table after each meal, nor, if the dining room is visible from the other rooms, does the table look well with its white cover.

While most people have embroidered linen, there are a number of other materials available. For hard use the best of these is double damask which comes by the yard in single width, having no border but a small pattern, generally no more than a dot. This is cut into the desired shapes and either scalloped or edged with linen lace. It has more body than the plain linen and keeps its place better. It is also rather more difficult to do up nicely, and being very narrow does not cut to good advantage. A double damask cloth of heavy quality will cut up into several sets of doyleys and centers, the pattern not being sufficiently noticeable to be a serious objection for everyday use. A set of heavy damask, center, twelve plate doyleys and twelve tumbler doyleys, each piece with a design woven in the fabric, stamped ready to scallop, costs five dollars and a quarter, and with one extra center, costing a dollar, this number of pieces will answer for any but a very large family. Oval mats for platters can be had at proportionate prices. For a certain sort of room an unbleached crash of the finer

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sort is effective, either in single pieces or used for runners, the latter arrangement being only suitable with a rectangular table. The most satisfactory finish for the edges is rather coarse hemstitching. Or they may be edged with a machine made linen lace, at once effective and cheap. Still another finish is an edge of lace braid, the Russian sort, sewed around the edge, with an occasional loop turned inward, the material cut away inside the loop, the opening filled with a cobweb or other lace stitch. This is easy and inexpensive. Table furnishings of this sort are at their best in the summer cottage, but are also suitable with weathered oak furniture, in fact more so than finer linens.

For real economy there is no such investment as a couple of sets of Cluny lace of good quality. There is a good deal of difference in the various grades, the cheaper laces of this sort pulling out of shape very badly when washed. But the better sort is practically indestructible.

Refinishing the Dinner Table.

If the dinner table is to be fully displayed, in most cases it will need refinishing. It is not a difficult task for the amateur, being largely a matter of elbow grease. If it is anything but mahogany, the old finish should be removed with one of the preparations which come for the purpose. As most of them contain potash they have a bad effect on mahogany, giving it a purplish tone. There are other solvents which can be tried on a small piece of the table. Some varnish will yield to a swabbing with denatured alcohol, and sometimes a strong solution of carbonate of ammonia will reduce the wood to its first state. When the varnish is all worked off, the surface of the table should be rubbed with very fine sandpaper, or better with powdered pumice stone mixed with water to the consistency of cream, and rubbed on with a piece of an old felt hat. It will probably be necessary to stain the table top slightly to match the lower part, unless the whole piece had the varnish removed, which is not often necessary with furniture of the better sort. The final process is to wax the table top thoroughly with one of the prepared waxes, or with a mixture of beeswax and turpentine, rubbing the stuff in very thoroughly with woolen rags, polishing with a fresh set. A table so treated will stand much hard usage and improve in appearance with every fresh application of wax. Nor will it turn white like varnish if subjected to heat.

Peanut Oil for Salads.

Peanut oil is not new, having been used by the Germans for a good many years. The potato salad of the average delicatessen store is made with peanut oil, while the German epicure compounds it with goosegrease. But in the last few months a brand of peanut oil which claims to be as good as the best Italian olive oil, has been put on the market. It is said to have all the good qualities of olive oil, without the peculiar flavor which is as disagreeable to some people as it is delightful to others.

This special peanut oil is made from African peanuts, by Dutch workmen and by a process of cold pressure which effectually prevents it from becoming rancid. Physicians who have analyzed it say that it is peculiarly free from free fatty acids which are irritating to the digestive organs.

Aside from its other advantages, the cost is considerably less than that of the Italian product. It is cheap enough to be used advantageously for frying and shortening purposes, as many people use cottolene. With the increasing distaste for animal fat shown by the present generation, it becomes somewhat of a problem to supply the amount of fat needed for a perfect diet. Salads containing a large proportion of oil are a help in this direction, and deserve to be largely used. It would seem as if peanut oil with its absence of distinctive flavor might be a means of enabling one to acquire the habit of consuming a certain amount of fat each day.

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TABLE CHAT—Continued

The Digestibility of Cheese.

The nutritive value of cheese is recognized by all food experts, half a pound of it containing all the essentials of a gallon of milk. Its drawback to a large number of people is its indigestibility, both in its cooked and raw states. Recent experiments have disclosed the fact that a slight addition of bi-carbonate of potash renders it completely soluble by the gastric juice, and causes it to be perfectly assimilated by the most delicate digestion. Unfortunately the cheese must be cooked in order to mix with the potash, but it is something to be able to eat a rarebit or a fondu.

Bowls for Puddings

In serving any sort of dessert which is to be eaten with cream, or a soft pudding, or custard, use the small bowls originally intended for rice, which abound in the Oriental shops. They look better than a saucer and are easier to eat from and less likely to spill over than a shallower dish. If they are set in a large pan of hot water, individual puddings can be baked in them without injury to the china.

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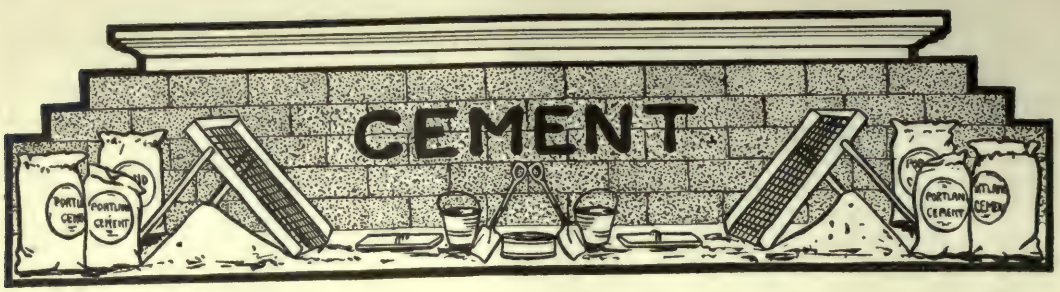
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LETTERS come to the editor's desk every day, asking questions about concrete stucco work. One man wants to build his home with plaster walls, another wants to put a light roof on a factory building and a third wants to build a silo. All these letters indicate a real interest in concrete stucco.

Stucco is a term that was originally, we believe, applied only to the material, or work, applied as a finish to brick, stone or concrete walls. Latterly it has been made to include the use of Portland cement plaster applied to metal or other lath.

The use of stucco has many advantages. The advent of expanded metal fabrics has tended to cheapen the cost of applying stucco and the next few years are sure to see the erection of many different kinds of buildings constructed chiefly of Portland cement stucco applied to metal lath. Properly handled, stucco serves a number of purposes admirably, and it is reasonable to suppose that the growing popularity of this material will be of benefit to the entire concrete industry.

In cities and small towns, the Mission and the Old English styles of architecture have brought stucco construction into prominence.

Covering Shingles With Cement.

Cement enters so much into the carrying out of unique ideas that one is scarcely surprised at anything connected with it. The question of using it to cover old shingle roofs is often brought forward and this account of its successful operation will be of interest. The owner says: "I covered that roof with cement in the summer of 1908, three parts of coarse, sharp sand to one part of cement. When thoroughly dry we went over it with a coat of clear cement in water with a white-wash brush, to cover up small seams made in drying and to make it waterproof. If a person builds a cistern with brick and cement in order to make it watertight he would have to go over it with a coat or two of clear cement. It is so with a roof. The roof has neither leaked nor cracked although the snow last winter drifted on the roof four feet deep or more. I was so well pleased with my first experience in covering a roof with cement that I covered one side of my largest cow barn last summer with cement put on over old shingles. As the roof is quite steep (two-thirds pitch), I took barbed wire and ran it in a serpentine manner about 3 feet apart all over the roof and fastened it down strong with common barbed-wire staples. This roof I covered on an average of about 1 inch thick; my former roof only one-half inch, which, I guess, is sufficient on most roofs, as 1 inch makes a pretty heavy roof. I used a roof ladder to put it on, commencing at top, laying a strip about three feet wide."

Contraction Cracks Due to an Absorbent Aggregate.

In an investigation of serious contraction cracks in "in situ" concrete, it has been shown that an absorbent stone as an aggregate can be readily responsible for this disfiguration. In this experience it was found that a concrete (6 parts of aggregate to one of cement) was being used for the construction of floors and walls of sewage tanks, and in this work the responsible engineer had specified as an aggregate the sandstone from a certain quarry adjoining the site of the work. This stone, it was found on passing through the crusher and concrete mixer, became sufficiently disintegrated to provide the requisite amount of sand, and consequently the addition of other sand was unnecessary. The work of con-



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Asbestos "Century" Shingles are the first practical *lightweight* roofing of reinforced concrete—the one material tough enough to resist weather, fire and time. They make the only *truly* indestructible roofing.

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struction was commenced in the early part of the year, and except for interruptions caused by frost, the same proceeded satisfactorily, but towards the end of spring large contraction cracks appeared in the concrete, and indeed many of these cracks appeared within one or two days of its being put into position, and as it was thought impossible to avoid these cracks with the cement that was regularly in use, the work was stopped pending an investigation. On inspection it was found that the contraction of the concrete had resulted from the dry absorbent nature of the sandstone used as aggregate. Practically no rain had fallen for three weeks during the period of construction, and an east wind had been generally prevalent, causing the stone to be very dry before being put into use. The larger lumps of aggregate (up to 1½ inches) did not become saturated with water during the mixing of the concrete, and consequently absorbed a quantity of water from the concrete whilst the latter was in process of setting. Thus in addition to the contraction which occurred as a result of this absorption, the concrete also failed to harden satisfactorily, owing to the lack of water necessary for crystallization. The contractor then reluctantly applied the obvious remedy of soaking the stone for 24 hours before use, and after some extended experience of the use of the aggregate under this new condition, it was reported that the trouble of the contraction cracks had been well overcome.—Contract Record.

Effective Use of Artistic Tiles With Concrete.

Within the past thirty-five years the manufacture of tiles has been developed and perfected in this country to such an extent that America is now turning out a product which far surpasses that of any foreign manufacture, both from the esthetic and practical point of view.

Tiles are now used in New York to a great extent in every line of building operation, owing to fireproof requirements and scarcity of lumber.

The faience tiles made by several manufacturers, some from the formula of ancient Babylonian tile, are beautiful and durable and are used to great advantage on the exterior of concrete or cement building. Beautiful effects are obtained by the use of tile in the moldings, architraves of doors and windows, friezes, etc. These, contrasting with the cement, are so placed as to create a magnificent appearance. The roof also may be of tile, making a covering durable, waterproof and fireproof.

Concrete Coast Defenses.

"Recent tests at Sandy Hook of the resisting power of reinforced concrete as a defense against high-powered projectiles confirm the calculations of the penetrating power of the twelve-inch gun. A concrete wall twenty feet thick, heavily reinforced with steel beams, was pierced by a twelve-inch projectile fired at high velocity. The blow delivered was sufficient to penetrate twenty-two inches of armor plate, and the reinforced concrete withstood the attacks so well that it will probably be used in the construction of the new coast defense fortifications in the Philippines. A similar attack is to be made with the fourteen-inch gun."

A Sack of Cement a Useful Thing.

A sack of Portland cement is a very useful thing to have for making quick repairs. A hole in a drain pipe can be stopped in a few minutes with a little cement, mixed with water thick as putty. A crack in a barrel can be stopped this way. Hardwood floors may be patched and nail holes filled so that they will not leak.

A waterproof floor can be laid over an old floor in a short time. Sweep the old loose boards. Cover with a layer of heavy wire netting, tacking it down occasionally. Over this lay a layer of concrete of one part Portland cement, three parts clean sand, mixed with water to a thin paste.

Smooth thoroughly, but if it is to be used by stock brush with an old broom to make it rough, then let it dry thoroughly before using the floor. Gutters may be put in where necessary. Holes in an old shingled roof can be quickly stopped by forcing a little cement putty through the shingle where the leak appears.

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Heat Generated by Cement.

To measure the heat generated by the hardening of Portland cement tests are being made in the Panama Canal zone by embedding in the walls of the locks built at Gatun, six resistance thermometers. At different stages in the settling of the cement readings of the temperature are to be taken. The temperature increases rapidly from the time the concrete begins to crystallize until it reaches its final set. From the settling point the increase is slow but usually continues during the hardening process, which may last several years. The results of these experiments will be likely to prove of great interest and may throw some light on expansion and contraction which is the bugbear of all cement users.

Proper Mix for Concrete.

A correspondent writes: Is there any rule which can be followed to determine amount of water to be used in mixing concrete?

Answer.—In practice there is no rule which can be used to determine the exact amount of water required in mixing concrete. The class of work is usually considered the governing factor. The condition of the weather, the dryness of the sand, gravel and crushed stone, the proportions of materials, the time of removal of forms, and the required density of the concrete also govern the amount of water to be used. Under ordinary conditions the concrete should be of such a consistency that when tamped it will quake and water will flush to the top.

In order to obtain a dense watertight concrete, enough water should be used in mixing to ensure the closing of all the voids; in other words, concrete should be wet enough so that it can be puddled instead of tamped. In this case the thin mortar will flow, filling the spaces between the larger aggregate, thereby producing a dense concrete. This does not mean, however, that an excess of water should be used; if mixed too wet the water will have a tendency to wash the cement from the sand and gravel or crushed stone, and to separate the mortar from the large aggregate.

Concrete Cheaper Than Other Construction.

Following are some figures which substantiate the statement that concrete is cheaper than other construction, says Concrete Age.

Hollow block construction, wall 8 to 12 inches thick, from 17 to 34 cents per square foot of wall, to which should be added the cost of inside finish coat, which may be applied without lathing or furring.

Hollow, reinforced concrete wall, from 14 to 24 cents per square foot of wall, plus cost of finish coat.

Brick—13-inch wall, from 35 to 48 cents per square foot of wall; 9-inch wall, 25 to 35 cents per square foot of wall. The interior finish of a brick wall costs considerably more than that of concrete.

Hollow tile—about the same as brick.

Frame buildings cost more than concrete, but are cheaper than brick and are, in cost of maintenance and in deterioration, more expensive than either.

The above figures are only general, as cost varies in localities, but they serve, says Municipal Facts, New York, for comparison and give the prospective builder a hint as to whether it would not be wise for him to consider concrete.

Cement Girder and Column.

Girders should never be constructed over freshly formed cement columns without permitting a period of at least two hours to elapse, thus providing for settlement or shrinkage in the columns. Before resuming work the top of the column should be thoroughly cleansed of foreign matter and laitance. If the concrete in the column has become hard, the top should also be drenched and slushed with a mortar consisting of one part Portland cement and not more than two parts fine aggregate before placing additional concrete.

Securing Dry Cellars.

In localities where a porous or sandy soil exists to the depth of six or more feet, says Cement World, cellars are usually dry without the use of any preventive to dampness; but where compact soil exists, usually about 80 per cent of all cellars are subject to dampness, as few have been water-proofed. While concrete is subject to dampness like brick and stone it is more readily water-proofed than those materials, as those who have done work below the water line know.

A monolithic wall below grade is cheaper and stronger than any other kind of wall, and when water-proofed on the outside and on top it will insure dry walls. It, however, causes water to remain on the outside, which is also injurious to health; and nothing but proper drainage will overcome this evil.

Perhaps the best method of securing the necessary drainage consists in loosely placed rough rock near the wall with a 4 or 6 inch porous drain tile, joints not cemented, placed in the bottom of the trench. The drain tile must have no less than 1 foot drop in 20 feet. This size of drain pipe is sufficient for buildings up to 60 feet in length. In localities where clay soil or hardpan are found it is necessary to place another drain 6 feet from the wall in a trench of sufficient depth to be free from frost. This drain is also covered with cinders or brick bats, allowing space to cover with soil of sufficient depth to give nourishment for the lawn. In no instance should the drain next to the wall be below the cellar floor level, while the drain in the lawn may be just below the frost line. The cellar and conductor pipes should be made of socket sewer pipe, well cemented at the joints, and have a trap at every opening on the inside of the building, and one trap after all connecting drains have been entered into the outlet. This trap must have a vent to allow the escape of gases.

There are two kinds of water-proofing, one variety is the kind mixed with the cement dry, before it is used in the concrete or in the finishing surface of the floor. Another kind is used for application to walls after they are set. In every case full directions are given for their use.



Jack's House

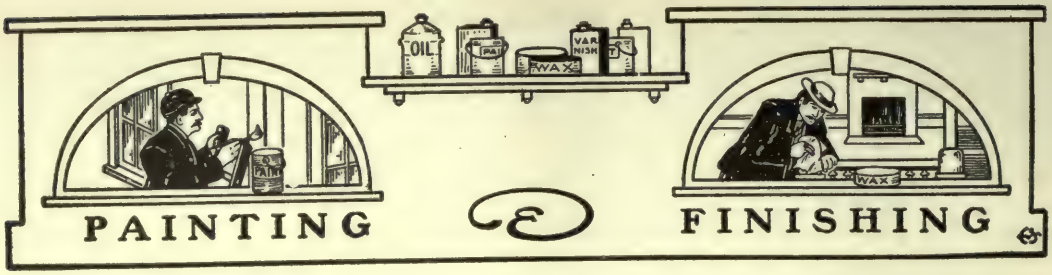
This is the house that Jack built when he and Mrs. Jack were first married.

Since that time Jack has prospered and he decided to have a more up-to-date home.

But he and Mrs. Jack and Miss Jack liked the old home and the neighbors, so they decided to make the old house look like a new one. Next month we will tell you how Jack did it.

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PENCIL MARKS FROM PAINTED WALLS.

PENCIL marks can sometimes be removed from white paint by gently rubbing them with breadcrumbs in the direction of the course (not across), or by rubbing with a slice of lemon or raw potato. In more obstinate cases all traces can be removed with pure turpentine or benzine, taking care to wipe it off quickly with a dry rag afterwards. The polish can be restored to the surface by lightly rubbing with a soft rag dipped in a very little pure linseed oil, or by just polishing with a little whiting. If the pencil has left indentation marks they can be gotten out by laying a piece of felt that has been wrung out of water over the place, then pressing a very hot iron over the felt.

Practical Suggestions.

Kalsomine Colors.—Some pigments do not act well with kalsomine, because the latter has a lime base, and lime injures certain pigments, such as Prussian blue, yellow chrome and the copper greens. The earth pigments, sienna, Vandyke brown, ocher and umber, and the others of this class, may be safely used. Ultramarine blue also may be used. The ready prepared water colors are handy for tinting with. If you use dry pigments, then break them up in a separate vessel, and add to the mixed kalsomine.

Some Useful Definitions.—A hue is any variation of a color, light or dark, and is correctly applied to a mixture of either the primary or the secondary colors. A shade is the result of the mixing of colors or hues with a darker tone or black. For example, a tertiary or quartiary color is a shade of the primary colors. Tone: When we do a room in which a certain color predominates that color is the tone or color of hues in combination prevailing. Thus, a blue room may have other colors combined in the color scheme, but if blue stands out prominently above the rest, we would refer to the effect as being a blue tone. Tint is a term applied to a white to which has been added a very little color.

Graining or Imitating Woods with Color.—This old and highly useful art seems to be enjoying a revival, and likely as a result of the increased cost of hard woods, as well as the need for renovating old painted work and old hard wood work that can no longer be made sightly with varnish. There are two shades of oak, the light and dark, the dark having many variations of color, ranging from near-black to a grey. It is possible to imitate the stained effects with graining colors, by using the proper colors, as a glaze of chrome green in oil over the grained wood that is to match so-called green oak. It is always a decided advantage to glaze over any oak graining that is light enough to admit of it. Take a very pale oak graining and cover this glaze with burnt umber or drop or lampblack, or darken some of the graining color and glaze with that. The parts of a door or paneling may be emphasized by applying dark and lighter glazing color. Thus the rails of a door may be dark, and the rest of the work light to medium dark. Satisfactory effects in graining depend as much upon the color and shading or glazing as upon the marking made.

Painting Yellow Pine Wood.—If the work is exterior and to be painted white, prime the wood with a paint made from white lead thinned with a mixture of one part of pure pine tar to seven parts of raw linseed oil; mix the paint quite thin, and rub it well into the wood. Allow plenty of time for drying, and follow with a rather thin coat of white lead paint, tinted slightly with black, to give it a grayish cast, which will cover the dark wood better than pure white. Brush this



A House White-Leaded Is a House Well Painted

It is very important that you give much thought to the painting of that house you are planning.

Paint is the protection you can give your house against the wear of time and weather. It is the only insurance you can get against these two promoters of decay and deterioration.

It depends upon the paint you use on your house as to just how much protection you are going to give that house. Poor paint gives poor protection and, inversely, good paint gives good protection.

There is one way that you can be absolutely sure of obtaining paint that will produce perfect protection for your property—real protection that will stand the assaults of time and weather and add years to the life of your house—and that is to have your painter use pure white lead and pure linseed oil paint.

See that the white lead is Dutch Boy Painter white lead—then you will be sure the white lead is absolutely pure.

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second coat out well, finishing up with a third coat made stouter than the second, and with no color added. If you make the paint too heavy it will blister on yellow pine; two coats of paint on the thin priming coat is usually sufficient. Use as little driers as possible.

Thinning Paint.—To thin one hundred pounds of white lead for the last coat on outside work will require about five gallons of linseed oil, and from a pint to a quart of drier. Zinc white requires nearly eight gallons of oil to the hundred and about twice as much drier, being a very poor self-drier.

The Porosity of Oil Paint.—It is said, that a paint made from ninety parts of good boiled oil and ten parts of turpentine is less porous when dry than a paint made from either raw oil or boiled oil alone. It is probable, I think, that the turpentine hardens the oil and fills up its pores, if it has any, better than even the lead or pigment does.

Quick Floor Painting.—It sometimes occurs that a floor is to be done on the "while you wait" order, or with the least possible delay, and here is something that will fill the bill in such a case. Color some shellac varnish, the orange variety, with any earth pigment you prefer, or make a color by mixing two or more, with shellac, thin with alcohol and apply two coats, allowing an hour between them. By doing this the evening before, the floor will be fit to walk on the next morning. If you use wood alcohol, throw the room open to the air as soon as you can.

Painting Galavanized Iron.—For painting galvanized iron it is advised that a first coat of this mixture be given: Dissolve two ounces of copper chloride, two ounces of copper nitrate, and two ounces of sal ammoniac in one gallon of water; then add two ounces of crude hydrochloric acid; mix all in an earthen vessel. Apply one coat of this liquid to the surface of the galvanized iron; it will at once turn black. Let the job stand for a day, and then it will be found to have turned gray. Now apply a coat of red lead paint, tinted with raw oil and turpentine, half and half. Never paint galvanized iron with an oil paint. On the red lead priming you may apply any good paint.

Golden Oak Finish.—A very good stain for oak, to produce the golden effect, may be made with equal parts of gold size, japan and asphaltum varnish of best quality, thinned with turpentine. This will not raise the grain of the wood and dries quickly and hard. Put plenty of the stain on, rub it in well, and then rub off dry. This leaves the pores of the wood full of stain, while the flakes retain their original bright color, slightly enhanced by the stain. A paste filling follows, colored with drop black or Vandyke brown and burnt umber.

Shellac Finish for a Floor.—Take two and one-half pounds of bleached shellac, one pound of Venice turpentine, and one quart of alcohol. Place in a stone jug, in a warm place, and shake occasionally. It may be colored with any suitable pigment, if desired, with just enough to tinge the shellac, so that scratches will not show white. Two coats will usually be required, and the effect is that of a varnish-stain, the adding of the Venice turpentine rendering the varnish more elastic.

Kalsomining Over Kalsomine.—Of course, the old kalsomine ought to be removed, if not, then apply this coating over the old stuff: Dissolve a pound of white soap in hot water; soak one pound of white glue in cold water until it swells and is soft clear through; then pour off the water and add boiling water enough to dissolve the glue. Now dissolve two pounds of pulverized alum in hot water; stir the glue and soap solutions together, then stir in the alum solution. Now mix well together, and thin with warm water for use. Apply as in size. Kalsomine works very well over this.

Sizing Bare Plaster Walls.—The most common size for white plaster walls is made with glue and water, applied thin and hot or cold, according to whether the walls are new or old. But it is sometimes advised to use a thin coat of white lead paint, made sharp with turpentine. Then, when dry, apply a coat of glue size, to stop suction. But this is not always a safe method, for if the walls are inclined to dampness at any time, there will trouble with the lead paint, owing to the glue beneath it being moved by the dampness.

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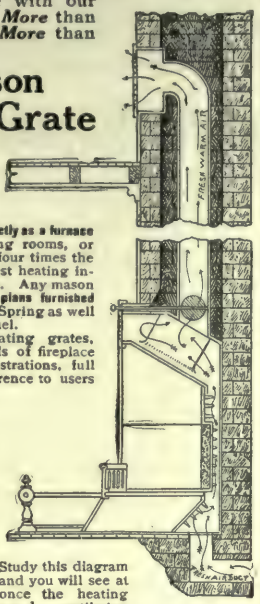
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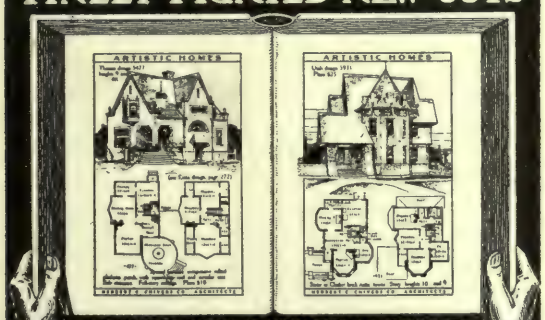
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SOME illumination on the question of circulating the air used in connection with furnace systems in heating residences is given in the following comment from a Western furnaceman and it presents one side of the matter more impressively than is ordinarily done, and this side is certainly an interesting one.

With regard to the objection to the return air system in connection with furnace heating, he finds that such objection is made, and it is one of the things that has to be overcome. One trouble in this whole proposition has been that people have followed hard-and-fast rules instead of principles. They have got hold of rules for heating a school building and have tried to apply these for heating a residence.

Let us take a concrete example. Assume a building is 30 feet square, the two stories being 20 feet high. It is estimated that this building with air at 140 degrees, according to usual rules of heat losses, would require about 72,000 cubic feet of air per hour. On account of various losses that cannot be estimated it would probably require at least 90,000 cubic feet per hour, but we will take the lowest figure of 72,000 cubic feet. Now supposing that the house has six occupants, each requiring a change of 30 cubic feet of air per minute. They would require a change of 10,800 cubic feet per hour to maintain the full standard of purity. If you pour in 72,000 cubic feet an hour and let that all escape either by leakage or by ventilating stacks, you are heating 72,000 cubic feet from zero to 70, when you need to ventilate only 10,800 feet from zero to 70.

The fresh air fad has been a good one. In the old days when people heated their houses with stoves, keeping the roooms closely shut up, had woolen carpets on the floors, the dust from which was stirred into the air and distributed on the walls by weekly sweeping, the air in many such houses was naturally very bad. But those conditions are radically different from the conditions of the modern house with a constant supply of air from the heating apparatus, with rugs instead of carpets and in many cases with a vacuum cleaner instead of the old corn broom. The fresh air fad has done good, but it can be run into the ground and it can be used irrationally. One of the greatest benefits that has resulted from the fresh air fad has been that in order to get the window up the women were compelled to run the blinds up and let in the light. The most powerful disinfectant, the most powerful germ destroyer, the most potent influence in securing the oxidization of organic matter in the air is light, and it has been the most abused and neglected. Fresh air is a good thing, that is to say, pure air is a good thing, but there is no advantage in throwing away a lot of good air and putting in a lot of other air of just the same quality at a lower temperature.—Exchange.

Some Plumbing Hints.

All details of the plumbing of a house are important, and one of the most important of them is the location of hot water tanks and pipes. This should have the careful consideration of experts if satisfactory results are expected.

The attic tanks and boilers designed for holding water for household purposes, should not be neglected, as they too frequently are. They require regular cleaning, if disease germs are to be avoided.

Exposed bathroom fittings are the best, from every point of view, but they should be of the proper material to secure sanitary results. The builder should always specify that they be either of gun metal or nickel plated.

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THE CHIMNEY CORNER.

By Edwin A. Jackson.

IN the construction of the masonry for any fireplace or chimney it is important that the foundation shall start from solid ground and as far down as the lowest part of the foundation wall of the house itself. If the fireplace is situated on the outside of the house, it should be built up with the wall itself.

All woodwork should be kept free from the immediate chimney and the beams should be framed around the brick work. A fireproof hearth should be constructed for a distance of 12 inches or more from the face of the chimney wherever there is to be an open fireplace.

The opening for the fireplace should appear in the center of the chimney. If a flue passes up one side only, and there is an extra amount of brick work, balance to the chimney can be secured by running up studs on the other side to give an equal width without a waste of brick work.

It is a safe rule to make the height of the fireplace rather less than the width of the opening and the depth should be at least one-half the height. The average size of fireplaces are made 30 in. wide, 30 in. high, 12 in. deep in the rough brickwork. To this is added the mantel facing giving a depth of about 15 inches.

The smoke flue, in cross section, should be about 1-12 the area of the fireplace opening. That would for the above mentioned size, 30x30, give a cross section of about 75 sq. in. and for this the flue is usually made 8x8.

The flue itself should be uniform in size from the throat of fireplace to the extreme top of chimney and sharp turns and unnecessary bends should be avoided.

It is desirable to use terra cotta flue lining as they insure a smooth surface in the flue and also give protection against possibility of a spark going thru an open joint of the firebrick work.

The flue linings should be carried a little above the top of the chimney so as to permit a beveled shoulder of cement to run down to meet the brick work.

Where a flue lining is used and care is followed in the construction it is sufficient to have four inches of brick around the chimney. Almost everywhere the building ordinances of cities require 8 in.

Around the open fireplaces there should be at least 12 inches of brick work, or 8 inches of brick work with 4 inches of air space, between the fire and any woodwork.

The space immediately above the fireplace is termed the "throat" and the sides of this should run at an angle of about 45 degrees starting at the sides of the fireplace and meeting the flue directly over the center of the fireplace.

It will be found a convenience to the mason and an economy to the owner, to build in an iron throat damper. This has the right shape to insure good draft and has the advantage that the damper can be closed when the fireplace is not in use or when the draft of the fire is too strong.

H. H.—Your suggestion of plastering the inside of your flue as the chimney is being built, insures a smooth surface while the work is new, but is not desirable because of the plaster will eventually loosen and fall. When it drops out, it pulls some of the mortar from between the bricks and this only makes the surface rougher than it would be if the brick work has not been plastered.

Moreover the pulling of the mortar from between the brick makes possible the passage of a spark from the flue to the surrounding woodwork. If you cannot get terra cotta flue linings, have eight inches of the brick work, well laid, but not plastered inside.

W. W. J.—Wood mantels if properly made, can be used with entire safety where you have open fireplaces or regular open grates. In fact in Colonial times when the heating of houses was performed by open fireplaces, wood mantels were used almost exclusively and there are many fine examples of these mantels still in existence, without any suggestion of wear or scorching.

If you expect to have a large fireplace with blazing logs it is not wise to have woodwork of great projection, either in the way of columns or of low shelf. If you allow 6 in. or more of tiling between the opening of the fireplace and the woodwork there will be no danger.



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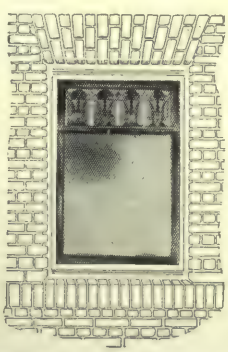
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SPLINTERS AND SHAVINGS

Stock Sizes of Doors and Windows.

THE use of stock sizes of doors and windows is frequently advised. While this advice may be considered as applying more to architects than to the average carpenter, I think that we can all look into the matter of stock sizes not only of doors and windows, but of mill work generally, and of ordinary lumber.

It might be desirable to have all of our work laid out by professional architects and to work entirely from the blue prints and specifications, but the facts are, that a great deal of common work is done without any blue prints or specifications, the carpenter and owner doing the planning, and doing considerable of it right on the job. For instance, the workman asks: "How large is the window to be?" The owner wants it of such a size that it can be secured readily and economically at the local mill, but probably does not know what size that would be. It is the same way with the doors. In such cases, the man who knows is appealed to and whether his knowledge comes from long experience or from study, he has a great advantage over the man who does not know.

To make my idea clear, a few words of explanation may be offered. Stock sizes of doors and windows, and in fact all mill work, are such sizes as are made up in quantities and kept on hand, in stock, ready for immediate delivery when ordered. It will be seen that a mill can make up, say 100 or 500 doors of a given size and pattern much more cheaply than it could make the same number of different sizes.

Having these goods already made your order can be filled quickly and at the lowest price, while if you order odd sizes they must be made up. To do this, the machinery may need more or less adjusting and re-setting. All this takes time and must be paid for. A mill may have a good supply of every stock size but if some one orders an odd size door or window it must be made and the chances are that it will cost for time and labor, as much as several of stock size would cost for the same item.

Of course it is sometimes necessary to order odd sizes to fit the openings already made and the mills must fill such orders, but there is no need of using odd sizes on new work.

In doors you can get the cheaper grades in more different sizes than the higher grades. Remember that sizes run in even number of inches, two inches larger on each size for door and windows. The smallest stock size is two feet wide. Six feet, six feet 6 inches, or six feet 8 inches and seven feet high. The narrow doors are for closets.

Then two feet, four inches wide, six feet, four inches, six feet, six inches and six feet, eight inches high.

Then two feet, six inches wide, 6-6, 6-8 and seven feet long. The more expensive sash doors are not made less than two feet, 8 inches. Doors of this latter width are made 6-8, 6-10 and seven feet high. Most grades of panel and sash doors are made two feet, ten inches wide, 6-10 and seven feet long. The largest stock doors are three feet wide and seven or seven feet, six inches long.

To condense this, you can figure on doors as many inches over six in even number of inches.

Doors are made seven-eighths, one and one-eighth, one and three-eighths, and one and three-quarter inches thick.

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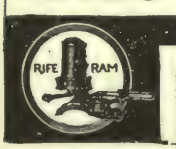
dinary galvanized nails which have been on the market for a long time.

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Galvanized shingle nails have been used for a number of years, but the main difficulty in the use of such nails lies in the preservation of the zinc coating without any breaking whatever. If through driving and bending the zinc coating is broken exposing the iron, galvanic action is set up at once and the destruction of the nail is only hastened. It is therefore apparent that the solid zinc nail will find a permanent place in building, especially in the putting on of roofs and outside coverings where nails are exposed to the destructive action of air and water which so quickly oxidizes iron metals.

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She has no money and accepts a position as ladies' maid to a newly rich English woman whose husband has been rerecently knighted. They are motoring through France and the maid must sit with the chauffeur, a circumstance which she dreads. He proves to be a gentleman by birth and education and these two young people get so much more out of the trip than their ignorant employers.

They fall in love as the reader expects them to. There are many incidents which show the superior quality of each and all ends happy with the eccentric old English lady, the aunt of the chauffeur, as the good fairy. Price $1.20. Doubleday, Page & Company, Publishers, Garden City, N. Y.

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ON HOME BUILDING

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THE JOURNAL OF MODERN CONSTRUCTION

M. L. KEITH, Publisher

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A COLONIAL DINING ROOM IN WHITE ENAMEL, SHOWING FIREPLACE, WAINSCOTING, PICTORIAL FRIEZE AND MOULDED CORNICE

KEITH'S MAGAZINE

VOL. XXV FEBRUARY, 1911 No. 2



A DINING ROOM WAINSCOTED TO THE CEILING

The Dining Room as It Should Be

By MARY H. NORTHEND

(Photographs by the Author)

THE dining-room more than any other room in the house demands careful consideration in the matter of planning and equipment. Its purpose limits its treament, and affords but narrow scope for individuality which is the most potent factor of interior decoration. Thus the most must be made of limited opportunities.

The vital point is location. In the planning of a new home this matter is readily solved, if a little thought is bestowed upon it, and even in a dining-room already built, the results of faulty arrangement can be materially lessened at slight expense.

No better location could be found than one that opens directly upon a veranda, to which the table can be removed, during the summer months. Of course in this case the porch must be screened, and long French windows must be pro-

vided to connect the room and the veranda.

Another excellent location is that where windows upon opposite sides of the room, as east and west walls, give opportunity for cross currents of air during the heated term. No other position can give the same effect of coolness, but it presupposes an arrangement of rooms by which large doors can connect the dining-room with other apartments across the hall, or else a very unusual narrowness of the house plan at that particular point, so that its total width is but the length of one room.

However placed, the dining-room must inevitably connect with the kitchen, or with the pantry which serves as an intermediary between the two. In many city houses, this fact unfortunately is apt to determine the position of the dining-room, without regard to more esthetic considerations.

It frequently happens that the most glaring fault of the dining-room is poor lighting. Cheerfulness should be the predominant characteristic of this apartment, and unless ample provision is made for the entrance of sunshine, the room loses the chief asset to its success. It is often possible in a gloomy room to add a bay window at the end or at the side of the room, thus affording additional light, as well as a wider view and an increase of floor space.

The position of the fireplace in the dining-room deserves consideration. This feature, while no longer absolutely necessary for warmth, is always as pleasing as it is decorative. Its best location is in the end wall, rather than at the side. If the space in the centre of the end wall is needed for the buffet, the fireplace may well be put into one corner. This location aids symmetry, if balanced by a built-in china closet across the other corner, with the buffet between them.

These built-in cabinets are worthy of thought. Not only do they decorate a plain interior and afford the best possible repositories for china ware, but they frequently successfully tone down an ugly bit of construction. Then, too, in a small room, where economy of floor space is necessary, they do away with the need of buffet or side-table.

After location and architectural features, the main consideration is that of finish. Oak is undoubtedly the standard wood for the dining-room finish. Golden oak and antique oak are favorable to color combinations, since they harmonize with almost everything, and form a perfect background. Chestnut makes beautiful paneling, but on the whole nothing exceeds dull finished oak.

For a small room, very flat paneling is best, as the flatter the panels, the larger the effect of the room. A room paneled from floor to ceiling is undeniably charming, but the cost is a considerable item. Only the very best material and the best workmanship are worthy to be used in such details. Any attempt to substitute the cheaper grades of either would probably result in warping and disfigurement which is difficult to repair.

If a part of the wall is to be plaster, the top of the wainscoting should be guarded. If a high wainscot is desired, let it stop at the same distance from the ceiling as the tops of the windows and doors. If the wainscot is to be low, it should reach above the floor only as far as the window-sills, for it will be found that a restful effect can be obtained only by lines that are continuous. If the room is low-studded, never break the side wall into halves by the wainscoting; use thirds instead. Divisions of a side wall into halves, either vertically or horizontally, are to be deprecated.

No other treatment conveys quite the same sense of exquisite neatness and perfect cleanliness which we receive



WHITE FINISH AND QUAINT COLONIAL FURNITURE IN MAHOGANY



A MODERN DINING ROOM WITH CRAFTSMAN MOTIVES

from that introduced by Robert Adam and his brother, and continued in the Georgian and Colonial periods. This gives us clean-looking wall-surfaces, paneled in woodwork for some considerable distance, and finished in plaster above the woodwork. All the wood-finish is hard white enamel, very easily cleansed. A good treatment of the plaster wall above, is to panel that also, in white, light grey, or light green. White paneled walls are always pleasing for a town dining-room, and furnish a becoming background for pictures or for furniture.

If the Adam line of treatment is to be followed, the ceiling and chimney-piece should be decorated in low relief with some one of the designs made by this great English master of decoration. It would be well to have a fine Adam sideboard, with separate pedestals surmounted by the old urns or knife boxes. Either Sheraton or Chippendale furniture would be effective.

The Colonial treatment requires less elaborate decoration than that which has just been mentioned. It is neat, fresh, and dignified. Its white enameled wall surface may be extended only as far as the wainscot extends, for a plastered wall with a plain Colonial wall paper is in perfect harmony. The white enamel contrasts finely with highly polished silver and old mahogany furniture in Chippendale or Sheraton styles.

Quaint touches may be given to a Colonial dining-room, by introducing the plain prim fireplace of our great-grandmother's day, with and-irons, fender, tongs, bellows, and even warming-pan. A grandfather's clock can well be placed in such a room, if we have a corner where it will balance well with fireplace or built-in buffet. The old Windsor chairs may be used, and the rug may be woven to order in imitation of the old-fashioned rag-carpet.

These individual touches have endeared to us the Colonial dining-room, so that more of them are in use among us today than of any other type. Right here is where we must use firm restraint, however, lest we indulge our love of curios at the expense of good taste. We need to apply Sheraton's rule for dining-room furnishing, and limit our individual efforts to "substantial and useful things, avoiding trifling ornaments and unnecessary decorations."

As for the furniture, the material may be mahogany, Flemish oak, golden oak, antique oak, or any of the cheaper and lighter woods, stained to imitate one of these standard sorts. Mahogany is always the queen of woods, but the genuine is expensive. Flemish oak is more reasonable in price, and is exceedingly handsome. Either of these woods, or their imitations, are beautifully harmonious in a Colonial room with white finish. A fine effect is obtained by staining the furniture to match the woodwork, but this makes it necessary to buy the requisite pieces in unfinished wood.

The number of articles to be used is rigidly limited by Sheraton's rule, already mentioned. These include the dining-table and chairs, the sideboard, the serving-table and the china cabinet. These are indispensable, and any one of them can be omitted only when we find a perfect substitute to fill its place.

To this number may be added at will a tea-table; a glass closet; a leather-covered davenport, to match the chairs, in case that they have leather seats; a tall clock, if the style of the room is Colonial; a tabouret for a large fern or artistic bit of pottery in the bay window; and a screen in front of the door through which the food is to be brought. In a very large room, all of these features could be introduced; but far more usually the rooms are small for their intended



POORLY SELECTED FURNITURE IN A ROOM OF ARTISTIC FINISH

purpose, and every effort must be used to avoid overcrowding.

The dining-table is of course the leading feature. It is the central thought of the whole room, and as such it should be treated. Only by keeping this idea constantly in mind can we secure for it the harmonious setting which it should have. Ordinarily speaking, round or elliptical tables belong to round or elliptical rooms, and square or oblong tables belong to rooms that are rectangular in shape. Of course the round table can be used in a rectangular room, if the sharp outlines of the corners are eliminated. Suppose at one end of the room there is a bay window of the curved type. Into the corners of the main wall at each side of this window china closets, in delightful imitation of the old-time corner cupboard, can be arranged at slight expense. Then the corners at the other end of the room can be neatly done away with by using a tall clock in the one and a screen of good height in the other, where the service door leads to the kitchen. In such a transformed room the round table can be placed with perfect harmony.

But whatever the shape of the eable, its proper place is invariably in the exact center of the room. Its size depends entirely upon the number of persons for whom provision is to be made. Its top should be sufficiently ornamental to be left bare. In the centre, a doily, of drawn work, embroidery, or Irish crochet, may be placed, with some simple decoration like a vase of roses, or a brass bowl filled with nasturtiums.

The chairs should be carefully chosen

as to height, with high, flat backs, and seats that are deep and easy. Their style should correspond with that of the finish and the furniture. Comfort will be increased by using the regulation carver's and tea-pourer's chairs at each end of the table, as their seats are slightly more elevated than those of the ordinary pattern, with the addition of arms and of higher backs.

The sideboard or buffet performs much the same office as the serving-table. The former is more suitable for large rooms, and the latter for small ones. By the use of built-in closets, we may dispense with the buffet, in the case of small and informal dining-rooms of a modified Colonial type. We may even omit both details, if we provide a ledge of reasonable width above the lower division of the closet. As this arrangement, if extended, will also do away with the need of a movable china cabinet, it is easy to see that much floor space is saved, and that for small dining-rooms the suggestion has much value.

The floor itself should be left uncarpeted. A Persian rug is generally the most desirable floor covering, unless a plain ground is desired, in which case, a fine Wilton pile may be chosen. It will be found, however, that a closely-set pattern of harmonious coloring is more serviceable in the dining-room than one of plain color and no pronounced design. This is because it keeps in better condition without showing wear and tear, and also because it gives the room more character.

The ample windows, with which the dining-room should always be provided, should be simply draped with light-colored blinds, and shades to be drawn at night and in the heated period. Silk is much used for this purpose, as are many materials that have a silken finish.

Besides the natural lighting, the artificial light has to be considered. No room with shadowy corners is attractive, and provision should be made for lighting these dark spaces. The fixtures should be chosen with a view to harmony, and those simple and durable should be given the preference. The time has happily passed when the central light is considered sufficient illumination, and, in consequence, the dining-room of the present is a pleasant, cheerful apartment, devoid of dim nooks, filled with depressing shadows.



A DECORATIVE FRIEZE IN COLORS

A Children's Play Room

The Necessity and Advisability of Pleasing Surroundings

By ARTHUR E. GLEED

(Drawings by the Author)



A BRIGHT AND CHEERFUL PLAY ROOM

IN THE cultivation of good taste in the home, to begin with the children is a stronghold for the future, and the provision of an artistic and pleasant playroom for their special use will do much for the awakening of their sense of the appreciation of the beautiful. The idea that a room which cannot be used for anything else will "do for the children," is an absurd mistake, and the practice of getting rid of old furniture and faded draperies by furnishing the children's room with them is really to distort the growing artistic taste in the coming generation, and to show at the same time that we ourselves have no true conception of the word artistic.

The children's room should be a place of happiness. Its coloring should be bright and cheerful, suggesting the outdoor world, and its furnishing should be



THE STENCILLED FRIEZE OF CHILDISH FIGURES

simple and plain, relieved by design of an almost primitive nature, that the whole may be easily understood by the occupants. The hygienic details must be studied, and the choice of a sunny situation is essential, for the room will be used more in winter than in summer. Spacious windows should be provided to admit abundant air and light, and the heating should be sufficiently adequate to admit of the windows being open in winter, that the pure air may be enjoyed whilst the children indulge in active games and dances.

In the play-room illustrated we have a good example of a cheerful environment for children, and at the same time the appointments are inexpensive, easily cleaned, and sufficiently durable to stand the hard wear they are likely to receive. The walls, at the lower part where most of the wear takes place, are lined with a wooden wainscot. Above that they are painted with oil color as far as the frieze, and the latter, together with the ceiling, have a kalsomine finish. The color scheme is a happy combination of blue and green, used as a background for the warmer and brighter tints of the decorative patterns.

The stencilled frieze is two feet deep, and has the effect of lowering the wall spaces to suit the height of the children. The ceiling and background of the frieze as far as the skyline are tinted a pale blue, and the remainder of the frieze background, forming the distant trees, is tinted a light sunny green. The large trees are put in with a dull blue-green for the foliage and olive green for the trunks. The groups of children are in dainty shades of pink, mauve and yellow, with a dull flesh pink for the faces, hands and feet. The rabbits in the foreground are creamy white, and touches of bright color are added by the powdering of blossoms between them. The design of the frieze is so arranged that it does not



FORMING A PROCESSION ABOUT THE ROOM

form a regular repeating pattern, but can be varied and arranged to suit each wall space. A pleasing group of trees and figures can be placed over each window and door, and then the remaining space on either side filled in to form a procession of children between trees. After the main figures are spaced out, the rabbits and small flowers can be added to the foreground where space suggests them, and the whole lined up with a wooden picture molding stained deep green. The finished frieze will have the appearance of a quaint procession of child figures and rabbits, which will form a series of pictures that will be a delight to children.

The wall space below the frieze is oil painted a light sunny green as far as the wainscot, and the latter is stained deep green and oil finished to bring out the grain of the wood.

One end of the room is fitted with a three-sided settle and a table as shown in the illustration. This end of the room would be used for all kinds of table games, reading, lessons, and also as a dining place. To complete the dining place idea, a small dresser-sideboard stands behind the projecting side of the settle, and holds all the china, etc., necessary for meals. Children delight in all kinds of housekeeping games, and it should be an entertaining task for them to lay the table for their own meals, and by the stimulus of reality, they will learn the value of much that is usually done for them by adults. Their work would consist only of laying the table ready for meals and clearing it afterwards, for of course all cooking would be done elsewhere. But even this small service, when well done, would be excellent training for the children, and the entertaining of little visitors under such circumstances would have an added pleasure.

The settle could be constructed open underneath as in the illustration or it

could be built in box form and thus provide a handy place for storing books, papers, etc. The seat should be fitted with mattress shaped cushions covered in some dark green material such as serge or denim.

Except where the settle and sideboard stand, the wainscot is capped by a broad shelf, supported at intervals by brackets. This shelf is specially used for toys, for these have considerable decorative value, and are well displayed against the plain green wall. Immediately below the shelf are placed some substantial hooks for rackets, etc., and one particular wall-space could be set apart for wraps.

Growing plants are an important item in a children's room, for apart from their beauty, they are a great educational factor if the child is taught the requirements of plant life. A plant stand such as illustrated would not be a very costly affair, and it would be a veritable indoor garden when filled with blossoming plants. It should be substantially built of wood an inch thick, with legs two inches square that it may stand firmly and bear the weight of a number of pots. The box should be fitted with a shallow zinc tray to take any overflow of water. The roof with its upright supports can be more lightly built, and a pretty effect would be got by making the roof of silver birch bark and training ivy up the posts and over the roof. There are many hardy flowers that will blossom well at a sunny window, and it would not be difficult to keep up a show of color, especially as the pots can easily be removed and replaced by others from the outdoor garden, according to season.

The main part of the room is left clear of furniture, to allow for games and romping. One or two chairs can be introduced, but the settle will supply almost all the seats wanted, and the clear space will be appreciated by the children. If they possess many books, a set of bookshelves standing on the floor immediately below the toy shelf would be an incentive to tidiness. One large rug to cover the center of the floor need be the only floor covering, and beyond that the boards can either be stained and waxed, or painted a dull green.

The curtains at the windows are of unbleached linen, decorated with a broad border at the bottom edge, executed either by stencilling or appliqued linen. A bold design of apple branches would be a suitable subject as the natural tints of dull green and red-brown would harmonize well with the buff color of the unbleached linen.

Expensive wood should not be used for the fittings and furniture of the room, for children like to be free and active in their own domain. White pine can be made up inexpensively, and when stained a warm green and given a dull polish, it will give an excellent effect. Pictures for the walls, framed in green frames to accord with the woodwork, should be chosen with simple subject and rendered without detail, that they may be easily and definitely understood. Excellent nursery pictures can be obtained printed in bright yet artistic colors, with subjects such as birds, ships, and landscapes treated in a quaint manner, which appeal immediately to the eye and mind of a child.

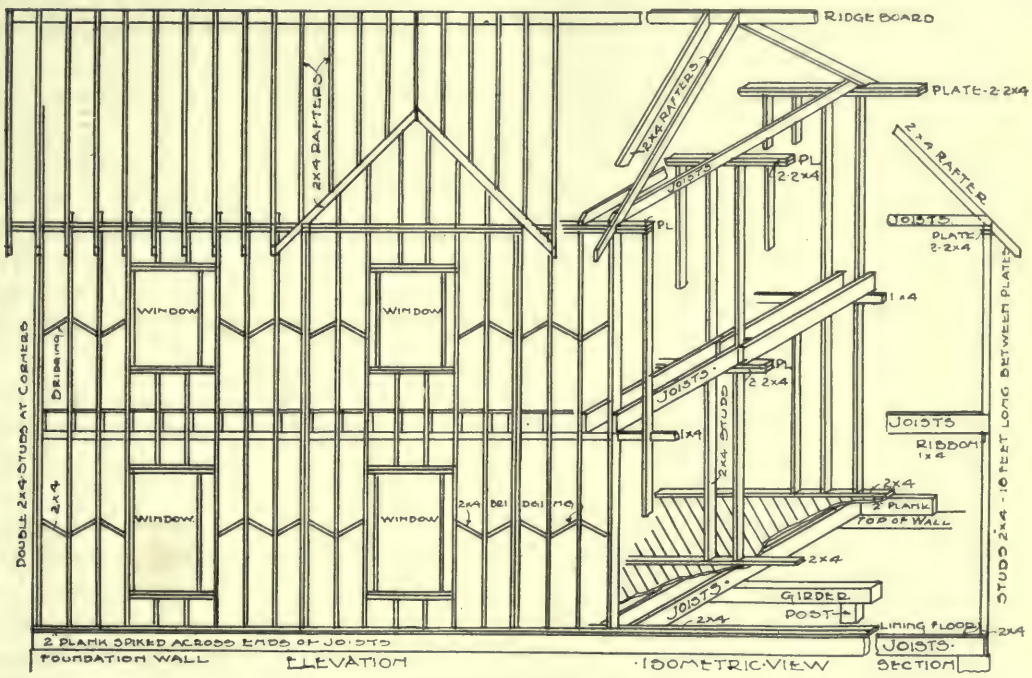
Such a room would be well worth spending time and money over, for the environment of children needs the utmost study, as they, even more than adults are influenced by their surroundings. If they mix constantly with their elders, and are always forced to adapt themselves to the grown-up world, they miss the natural free growth of childhood. But allowed a living-room of their own, where things are in proportion to their size, and the surroundings are simplified to suit their minds, they will learn more soundly all that is really useful and beautiful.

Construction Details of the Home

The Frame—Its Construction, Erection and Enclosure

By H. EDWARD WALKER

(Continued from January Issue)



THE BALOON FRAME

WHAT is known as the balloon frame is generally employed in the construction of the wood house. The fundamental principles of the construction are still preserved, yet the methods as to detail have undergone radical changes. In the early days intricate framing and numberless difficult joints were considered absolutely necessary, but simplicity is now the keynote of the construction. In the methods illustrated the work is shown, not as it might be under the very best practice, but as the modern workman would put it together if left to his own devices and as would be acceptable in most localities.

The previous article treating of the basement showed the posts, girders and joists erected upon the foundation and the lining floor in place ready for the frame. The next step is to spike a 2x4 in place about the outer walls directly upon the lining floor, as indicated on the accompanying section. The partitions of the various rooms are then outlined upon the lining floor in 2x4s. In each case where a partition has the same direction as the joists they should be doubled be-

neath it, or otherwise arranged as shown in figure 8 of the previous article. The studs are now erected, spaced 16 inches on centers and doubled at corners. No notice is ordinarily taken of the position of openings at this time either in the exterior or interior walls. There would seem to be some advantage in marking the position of doors and windows upon the 2x4 shoe before the studs are placed, but it is seldom done. The studs of the outside wall are shown 18 feet long, this being the length commonly used where level ceilings are to obtain in the second story. This gives 9 feet for the first story and 8 feet 5 inches for the second story, both measured in the clear, without cutting the stud to waste. The second floor joists rest upon a ribbon, as it is called, 1 inch by 4 inches, notched into these studs to keep the wall flush on the inside after plastering. See section. The joists may also be notched to receive the ribbon but it is seldom considered necessary, the joist being carefully spiked to the stud.

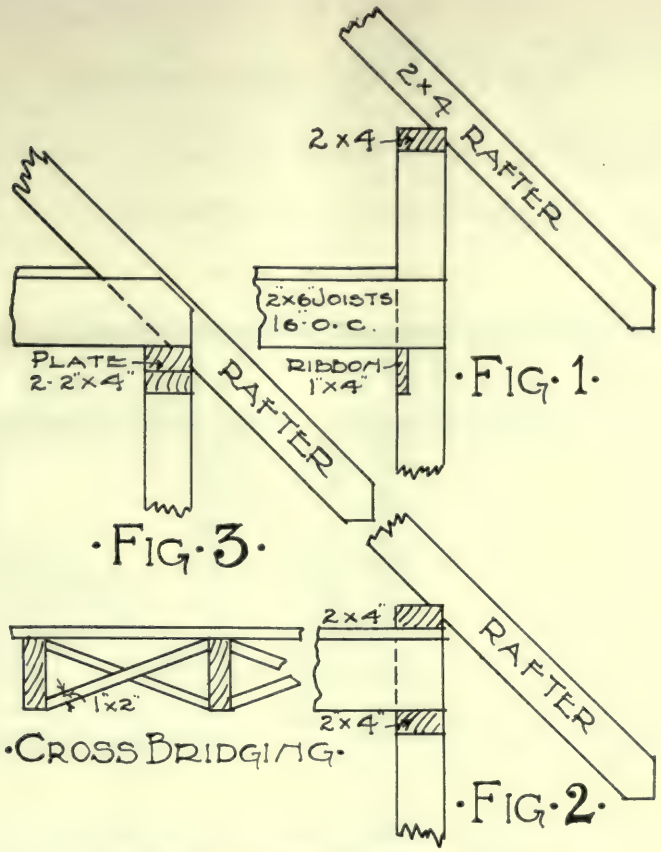
The interior studs are cut in story lengths only, with provision for a plate spiked across their upright ends, consisting of two 2x4s, upon which rest the inner ends of the second floor joists. The interior studs of the second story rest upon this plate and continue up to a similar plate that supports the attic joists. See isometric view.

The rafters and attic joists are framed to a double 2x4 plate spiked to the upper ends of the outside studs, the rafters being notched to secure a better bed and the corner of the joists are beveled off in line with the rafter as shown on the isometric view. The upper ends of the rafter are spiked to a ridge board one inch in thickness and in depth as required by the pitch of the rafters. Where rafters coming from different directions intersect a hip or valley is formed and a hip or valley rafter is necessary to carry the load coming from both directions. This requires a strong timber deeper than the joist framed against it, to include the whole depth of their cut ends. The elevation shows a portion of the exterior with the framing all in place. The studs are shown doubled at the corners, spaced 16 inches on centers, starting at the bottom from a 2x4 shoe and ending in a double plate of 2x4 at the top, on which rest the attic joists and roof rafters. The second floor joists are shown resting upon the ribbon and the flooring in place.

Short pieces of 2x4 should be cut between the studs of all walls, as indicated, for bridging. As soon as the floor joists are in place they should be bridged with 1 inch by 2 inch cross bridging as shown in figure. One line of bridging in a span of 14 feet or less is sufficient. Greater spans should have two lines of bridging.

Window openings are shown with 2x4 doubled about them showing method of construction and support. These openings are cut in after the frame is up and should be carefully framed for strength and accuracy. The studs at either side of the window frame should be set to allow a weight pocket from 2¼ to 2½ inches wide. The blind stop, which is that portion of the window next to and underneath the outside casing, should always be wide enough to nail to the studding at the sides, holding the frame securely in place.

Two other methods of placing the rafters and attic joists are shown and a larger drawing of the first method described. Fig. 1 shows the attic joists supported upon a ribbon like that at the second floor level, with the rafter resting upon the plate at the top of the studding. This allows more headroom in the attic at the outer walls, but if the first and second stories are of the usual heights, requires extra long studs at a greater expense. It does give a greater height to the cornice and more space above the



FRAMING OF RAFTERS, JOISTS AND PLATES

second story windows, a feature to be desired. Fig. 2 shows the attic joists resting upon a single plate with an additional plate spiked to them above on which the rafters rest. This requires no more material than figure 3 shown with a double plate, requires a little less framing in its erection, and gives a little more height to the building. The outside boarding or sheathing should be put on diagonally and should be dressed and matched, affording strength to the whole frame and keeping out cold. It will be found that loose knots and knot holes are in evidence after the walls are sheathed, unless a very superior grade of lumber is used and all such places should be covered with waste pieces of shingle, carefully nailed in place with short nails, from the inside. Care should be taken that all portions of the frame are level and plumb, thus avoiding trouble when the more important finishing materials are placed in position.

All portions should be carefully nailed not only to insure safety but to avoid settlement and displacement so often indicated by cracked plastering.

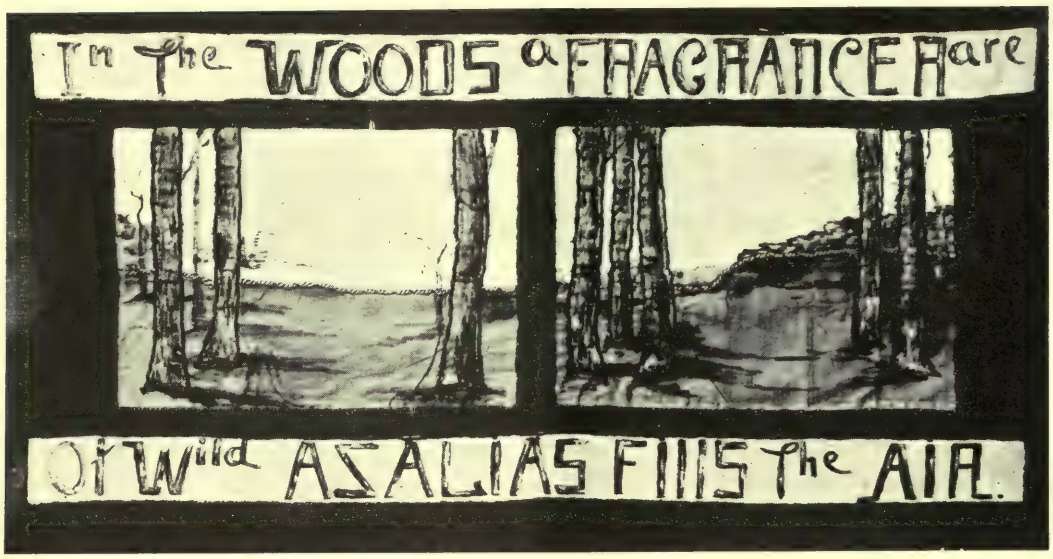
(To be continued.)

Wall Decorations

Suggestions as to Materials and Treatment

By MARGARET ANN LAWRENCE

(Designs by the Author)



AN OVER-MANTEL DECORATION IN TAPESTRY EFFECT

THERE has probably never been a time when the subject of household decoration has received quite the interest which is accorded it at present. The subject is one which is of as great vital importance to the home builder, as is the question of architecture and what might be called the more practical side of house furnishing.

For many years the house painter or decorator used stiff, unattractive stencils on walls and ceilings. Motifs that had no relation either in color or design to anything else in the room—but today it is quite changed. The earnest, intelligent attention given to wall decoration in the modern house is one of the strongest points of difference between the old order and the new, the whole idea being to make these prominent spaces serve as a natural background for the furnishings.

Women today demand harmony and individuality in their houses. As a result many interesting and artistic decorations are seen done by amateurs as well as professionals.

The hanging of a wall with fabric requires no professional hand. Stretch your strips of cloth, tacking them lightly in place at first as they may require more stretching later. There are many coarsely woven coverings now on the market, all suitable for this purpose. In covering the entire wall, the material may be tacked or pasted to the wall; edges just meeting under strips of lathing or narrow moulding stained to match the woodwork. Finish at the top with picture

moulding, also a narrow strip above the baseboard.

This treatment gives the effect of Japanese paneling and is delightful in appearance.

The next step is in selecting the stencils and the colorings to be used. There is today a wholesome reaction from the elaborate frescoing of garlands, bowknots and scrolls of twenty years ago. Between this and the severely plain there is a happy medium, where decoration of thoughtful design shall be sparingly used, and will add a touch of individuality to even the simplest house.

If one is afraid to design and cut a stencil most excellent ones can be purchased at the art stores; or they will have individual motifs cut if so ordered.

It is well to practice a little before attempting the wall, to get the desired colorings and spacings. Dilute oil paints with turpentine and then wipe the brush nearly dry. Put on the color in vertical dabs, rubbing in lightly. The stencil should be well fastened to prevent slipping and also at the edges to prevent the color running, leaving a ragged edge. Decide as to spacings. Measure carefully and keep them on a straight line. Charcoal dots and large pins will help mark where the repeats are to come.

We get a feeling of unity in the decoration of a room by taking one motif and repeating it in the stencil on the wall, the embroidery of covers and the combination of both stencil and needle-work on hangings.

The general use of the softly tinted alabastined walls in new houses makes very charming results and lighter colorings are possible.

Take a side wall color of a dull soft medium shade of green, the shade so restful to weary eyes and tired overstrained nerves. Carry it up to the ceiling, tinted in a pearl white. Now stencil a bold conventional motif at regular and evenly separated distances in a faint salmon pink, with a fine black outline on either side. It should drop about twenty-four inches from the plate rail. Use the color just as it has been prepared for the wall surface, only have it somewhat thicker and stronger in tone. Apply with short even strokes of the brush, taking care not to use too much paint, or it will run under the stencil. Fill every aperture of the pattern before removing the stencil, and have as many brushes as there are colors used.

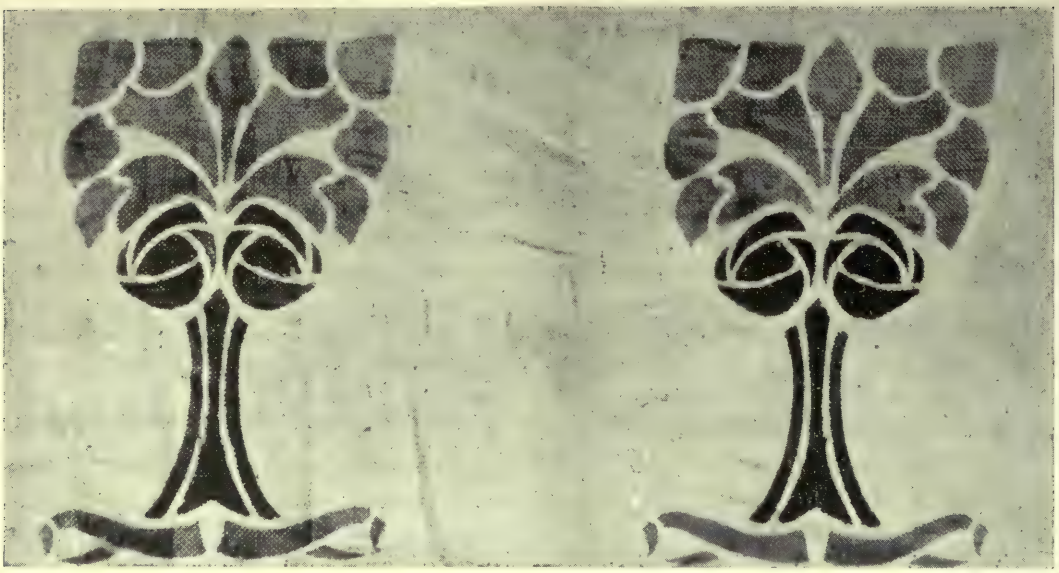
Now carry the stencil in small size—varied a trifle to fit different spaces, to your curtains, couch cover and pillow or two, and you will have a room which repays in full for all the thought and labor expended, and which has no trace of the commercial ready-made effects secured by wall paper.

Once started in wall decoration, you will be looking for more worlds to conquer; or rather, more walls to cover. There will be a space back of a couch or corner seat, or the wall over a mantel piece. Whatever you do, avoid over decoration.

Relying upon the fact that your wall is some solid color, choose the material to harmonize. Burlap, denim, Japanese grass cloth and matting all take color nicely.

In working on these large surfaces it will be found very much easier to merely trace the design of the pattern on the material from the stencil and apply the color with a large brush. The color to be used is the same as for stenciling on fabrics—tube paint thinned with turpentine or dyes. The applying of these free hand will be found very simple and it is much easier to shade the design a trifle if not bothered with keeping the stencil in place.

A dado of Japanese matting stenciled to correspond with the hangings makes an interesting room. Measure the length



A DADO OF BURLAP STENCILLED IN ROSES

of each wall, avoiding seams when possible. Tack it in place with ordinary tacks. A chair rail corresponding to the woodwork in the room gives the necessary finish at the top. Matting, while very artistic in effect, is not suitable for all rooms. In a study, den or the living room of a cottage it is very pleasing. The color may be applied before the matting is in place or afterwards. A delicate tracing of plum blossoms on bare branches—suggestion of Japanese art stenciled along the side which goes to the top, using dull red, gray green and brown for the stems makes an attractive design.

The design of roses shown was used as a frieze in a room where screen, couch cover and hangings were decorated with the same motif. The material is tan burlap; the colors dull red, leaves green and stems brown. A narrow moulding holds it at both upper and lower edge. In a dining room a plate rail could be used instead of lower moulding. The dragon design is suitable for den or study. The material is Japanese grass cloth. It can be purchased of any large department store and comes in a variety of good tones, but as a rule cream color is best to use. The dragons were worked out in yellow and black on a soft maroon background, or touches of gold with the black would also be effective. For the woman who desires the effect of a tapestry, the over-mantel decoration shown can be easily duplicated. A soft green cotton rep material was used for the background—this to be the length and width of the space to be filled. White china silk was used for the two larger panels, which were outlined with a small green cord, while natural colored linen was applied and outlined with the silk cord, making panels for the lettering. This was done with brown oil paints, each letter being outlined in black. The foreground is tinted a soft gray green with darker green shadows around the tree trunks; for the sky, faint clouds of blue are shown, and delicate masses of pink nearer the horizon line represent the azalia trees. The tree trunks are of linen tinted with oils in green and brown and give a rounded effect. Silk takes color so beautifully, any background can be

easily obtained, and dyes will be found best for using on this material. The finer details are unfortunately lost in the photograph.

Most important of the charming rooms which go to make the twentieth century home complete is the nursery, where the little ones spend the larger portion of their time. First among the many things which go to make the nursery light and pleasing is the wall decoration, and the importance of this cannot be over-estimated. The many varieties of paper shown fully illustrate this fact, and there is really great difficulty in selecting suitable ones. One thing not to be considered in a nursery is large figured decoration—which when the evening shadows light upon the wall will to the childish imagination assume goblin shapes, terrifying to the extreme. Then, too, bright colors are decidedly unfit for this room. The eyes of the little ones must rest upon the wall tints throughout the day and brilliant colors are injurious. In choosing the color it will have to depend on the size and location of the room. If large and sunny the general scheme should be cool and subdued, using only occasional bright touches of color. On the other hand if one is unfortunate enough to have a dark room or one on the north side of the house, it should have plenty of soft dull reds and yellows in the decoration.

If possible have tinted walls as they are much more sanitary. If this is not possible, choose smooth finish paper in a soft gray green tone. Stencil a frieze with children's figures or the quaint square animals so pleasing to childish minds. These can be applied directly to the paper, or can be stenciled on linen or common brown crash. These washable wall coverings are especially good for nurseries and the rooms of all growing young people. Some of the coloring in wall papers is poisonous and makes the air unwholesome. Tapestry dyes or oil paints, diluted with turpentine and applied thinly, then pressed with a warm iron will make these colorings washable. The little Kate Greenaway figures marked out in pinks, green and blues are very attractive; the animals in greens or delft blue on the cream crash look well. If one wishes to economize, mouldings may be done away with and to cover seams and outline panels strips of mounting board may be substituted. This comes in good colors and an inch wide strip fastened with a double row of brass headed tacks makes a good finish, or inch wide linen tape could be used.



A DRAGON DESIGN FOR DEN OR STUDY

A Modified Chalet

By UNA NIXON HOPKINS



THE COMBINATION OF COBBLE-STONE, CONCRETE WALL AND BROWN STAINED WOOD IS VERY PLEASING

A BUNGALOW with the characteristics of a Swiss chalet is the pleasing result of an attempt to vary the lines ordinarily used in small houses—which are more prescribed than those of larger ones.

The foundation of brick extends upward as high as the belt course and is roughly plastered above the ground. A plastered brick wall continues at the same height, enclosing the porch and terrace, being re-inforced at the corners by cobblestone, and broken by the entrance steps on the front and sides. The light color of the masonry relieves the dark brown of the shakes covering the exterior.

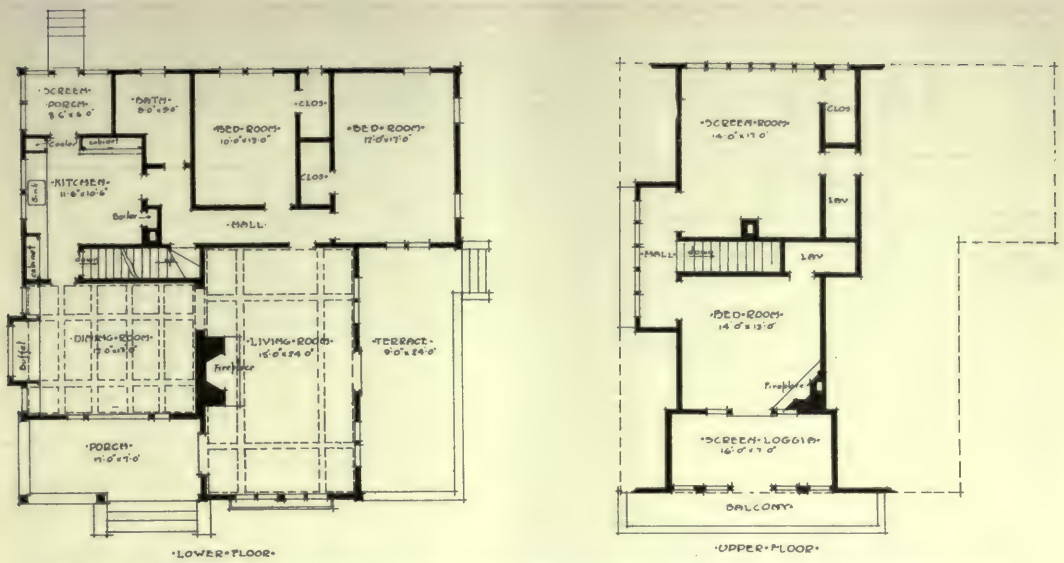
A balcony across the front gives the needed horizontal line to the house.

It is constructed of perpendicular, rough boards—each scalloped along the edges, in the center—and beveled at the lower ends, with a flat board finish at the top.

A well proportioned living room has casements along the front, and glass doors onto the terrace flanked by double casements and a large pressed brick fireplace between the outside door and the door into the dining room.

The end of the latter room is given up to a buffet with a window in the center over the shelf.

There are two bedrooms, and a bath, on the first floor, besides two above—and a lavoratory. Very little space has been taken up by the stairs. In fact the plan, as a whole, is most compact.



THE LIVING ROOM AND DINING ROOM OF BEAUTIFUL PROPORTIONS AND THE CHAMBERS ARE MANY AND OF GOOD SIZE



A MODERN LIVING ROOM FINISHED IN CURLY FUR WITH AN OAK STAIN

Designs for the Home-Builder

THE selection of a design is a perplexing matter, so many different propositions of home life depend upon it, that it is hard to find something that exactly meets the requirements. With this in view it is aimed to make the design section specially helpful.

The reader is advised to go over each design carefully noting the relation of plan to exterior and the general arrangement. Try to build a house of character, that will have something of yourself in it, reflecting lines of thought and study. Simple effects are best both in composition and in the use of materials.

Environment has a great influence upon the nature of the materials best to use and in what combination. A lot covered with trees of natural growth should have a house of different appearance than would be best for bare prairie land where trees must be set out. A hillside overlooking a beautiful valley would indicate the picturesque. There is harmony possible in all situations.

The designs selected cover the requirements of various sites and the business side, as it appears to the individual, has been considered as well as the purely artistic.

No design is admitted to these pages that does not appear to have characteristics which will be of value to our readers. Some must build with the utmost care to get dollar for dollar in return and to such, a design on ordinary lines will often be best. Simplicity and artistic merit go hand in hand and the quality of the work required often means a good price. Preparation for an early start will save money for the homebuilder.

Design B 214

A cozy little home is here provided, giving a very pretty interior arrangement. The den located at the back of sitting room will be found a most desirable feature.

Four good rooms are arranged on the second floor. The finish of the main rooms would be in birch and hardwood floors.

The basement contains a laundry and hot air heater.

Width, 26 feet; depth, 34 feet; height of basement, 7 feet; first story, 9 feet 5 inches; second story, 8 feet 3 inches; second story rooms full height. Estimated cost, $2,500.

Design B 215

This home is unique and pleasing with its twin gables and cement exterior. So many now consider the porch a place where the family and friends may have privacy and the front entrance a thing apart. This idea is admirably worked out in the plan.

The entrance vestibule serves its purpose and the porch is reached from the side entrance or from the large living room.

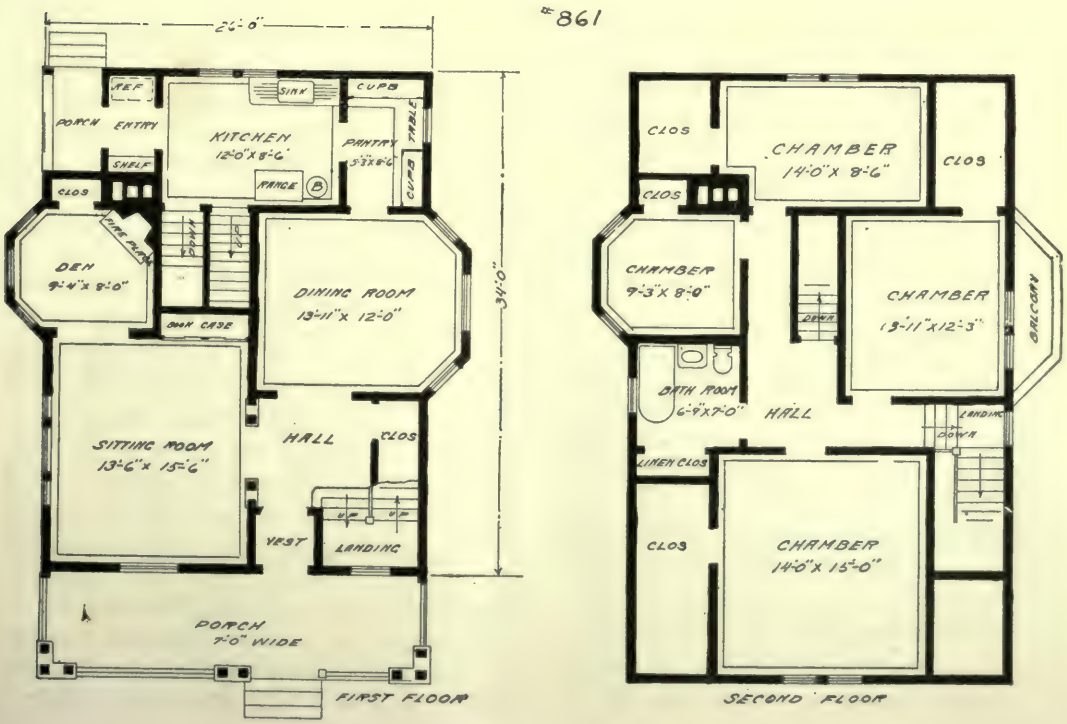
This room with the dining room have been treated much in common with only a ceiling beam dividing them. The fireplace with seats, book cases and flower ledges make pleasant features of both rooms.

The stair up and down in relation to the kitchen, etc., is especially well planned. On the second floor are three good chambers, linen closet, bathroom and balcony. The finish of first is birch in a rich brown stain with birch



A Pleasing Spacious Home

DESIGN B 214



floors. The chambers are in white enamel with birch floors. The construction is frame, and the basement contains laundry and hot water plant. Size, exclusive of porch, 24 feet by 28 feet. Estimated cost, $4,000. Less expensive finish and materials of ordinary quality would effect quite a saving.

Design B 216

A home built in the Northwest. Cobble stone, clinker brick, siding, shingles and gravel dashed stucco enter into the exterior of this house. The entrance and carriage steps and porch floors are of cement. The main rooms are finished in curly fir, stained and waxed. In the living room is a wooden cornice, chair rail, columned openings and brick fireplace with writing desk on one side and book case on the other.

There are sliding doors to the dining room and it contains a simple sideboard and built-in seats. The kitchen has built-in cupboards and a dumb waiter to the vegetable room. The main floors are of maple, others of fir. The second floor contains three good chambers, a screened balcony and a bathroom. There is good attic space and stair. The floor of basement is cement, the ceiling is plastered and it contains a hot air furnace. Size, 28 feet by 30 feet, exclusive of porch. This is a very complete house and costs about $4,500.

Design B 217

This attractive little bungalow has a sided exterior and the porch piers are of brick with a vine lattice supported on rafters above. It contains living, dining room and kitchen with two chambers and a bath. A foundation of stone supports the structure, and no basement is contemplated, or heating plant. Provision is made for a fireplace and the kitchen range, however. The finish is of Georgia pine throughout, including floors. The story is 9 feet in height. A family of three would be accommodated very nicely in this bungalow, the living room being of good size and with other appointments in keeping, it would make a very pleasing home. Few designs are as quaint in appearance and as compact in plan as this. The size is 38 feet wide by 27 feet deep and the estimated cost is $2,750.

Design B 218

This is a type of the old colonial farm house, modernized with a broad paved terrace in front and a trellis beamed hood over the entrance. The walls are a cream white color with sash and trim painted a pure white. The roof is stained moss green and the blinds a dark bottle green. The plan is the usual colonial type with a center hall and living room on one side and dining room on the other. Kitchen and pantry appointments are very good with convenient stairway arrangements. There are four chambers and bath on the second floor. Finish, except kitchen part, is in white enamel. The floors are of birch. The laundry and hot water heating plant are located in the basement. Because of a beautiful view and garden the porch is located at the rear. Size of house is 30 feet by 32 feet. Cost with economy of construction and materials, $3,700.

Design B219.

This house is of frame construction with stucco exterior finish, on very plain lines. The arrangement of living-room, dining-room and drawing-room is very impressive with the stair, fireplace and columned opening, all in birch finish. On the second floor are four chambers and a bath-room finished in white enamel. Birch floors throughout. Contains a fair attic space. Hot water plant and laundry in basement. Size without projections, 30 feet by 28 feet. Estimated cost $4,500.



A. R. Van Dyck, Architect

Unique Cement Cottage Design

DESIGN B 215



Design B 220

A lake home is a desirable possession and this one is especially so because it has all the advantages of a permanent residence. The porch is a delightful feature and could be entirely screened. The arrangement of rooms is admirable and the chambers in number and size to accommodate visiting friends. An ample fireplace affords warmth and cheer for chilly evenings. The finish and floors are in Georgia pine. The roof is stained green, the shingled walls brown and all the trim is painted cream white. For summer use, no heating plant is contemplated. Size, without porch, 30 feet by 45 feet. Estimated cost, $2,800.

Design B 221

This is a very compact little house occupying, exclusive of projections, only 27 feet 6 inches by 24 feet. On the first floor in addition to the usual living room, dining room and kitchen, is a library which may be used as a chamber as it contains a good closet. On the second floor are three chambers well supplied with closets and a good bathroom. The finish is of birch with birch floors. In the basement are laundry and hot water heating plant. The roof shingles are stained green and those on dormer sided and gable ends are a darker green. The body color on the siding is colonial yellow and the trimmings are white. The cose estimate is $2.750.



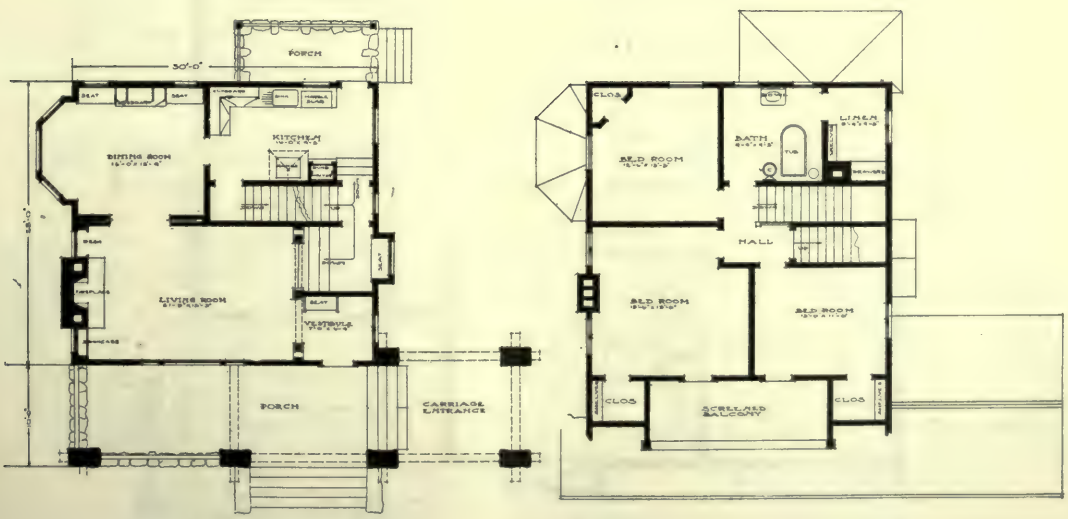
A DINING ROOM WITH ATTRACTIVE LIGHTING FEATURES AND FIREPLACE



Keith & Whitehouse, Architects

A Picturesque North-Western Home

DESIGN B 216



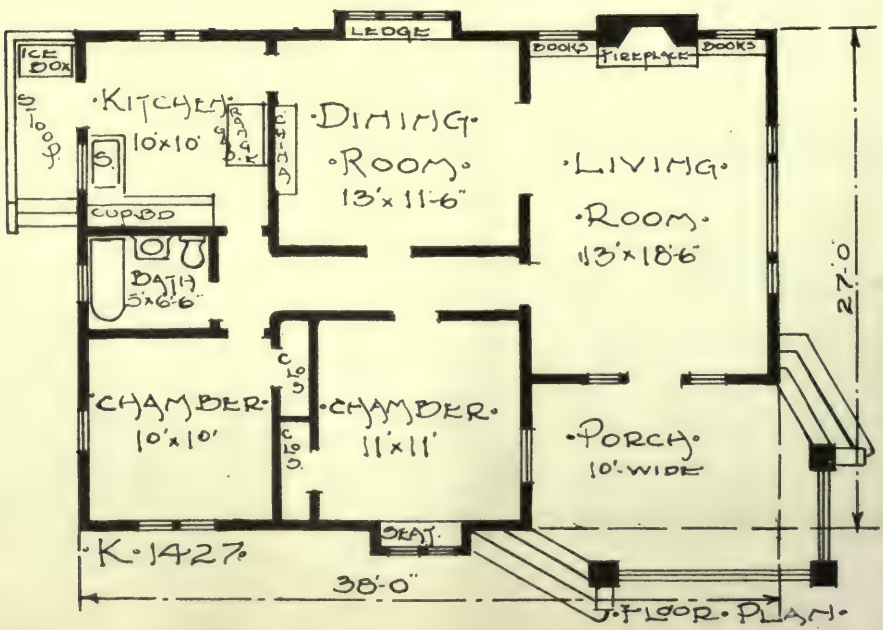
FIRST FLOOR PLAN

SECOND FLOOR PLAN



A Bungalow Carefully Planned

DESIGN B 217

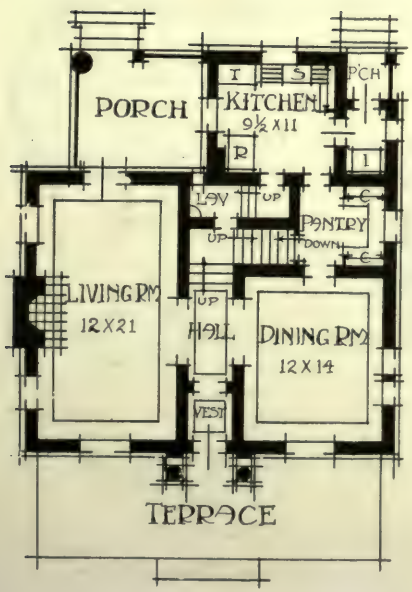


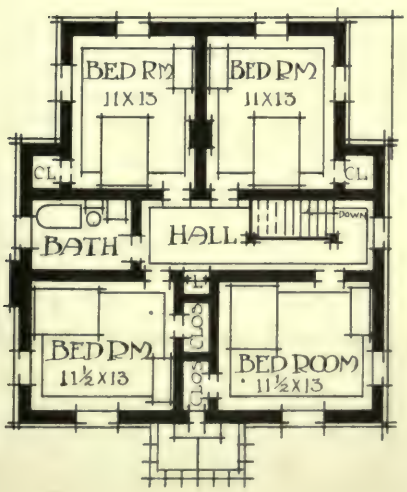


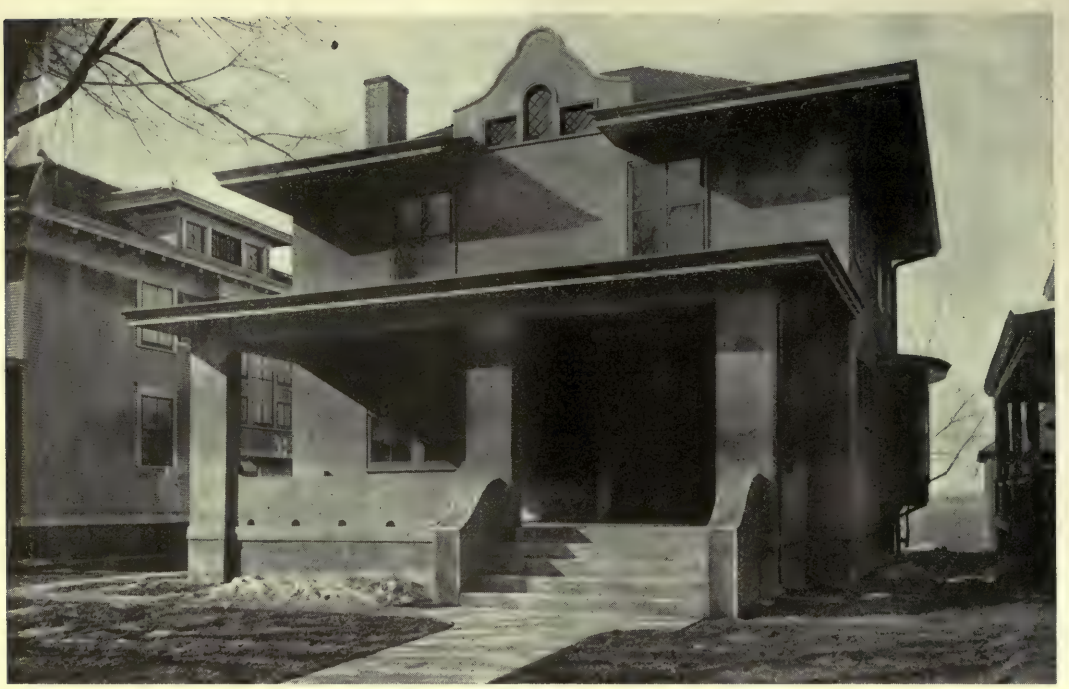
John Henry Newson, Architect

An Old Colonial Design

DESIGN B 218



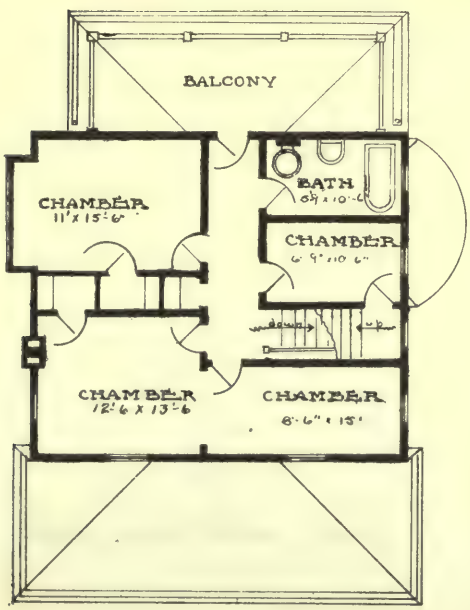




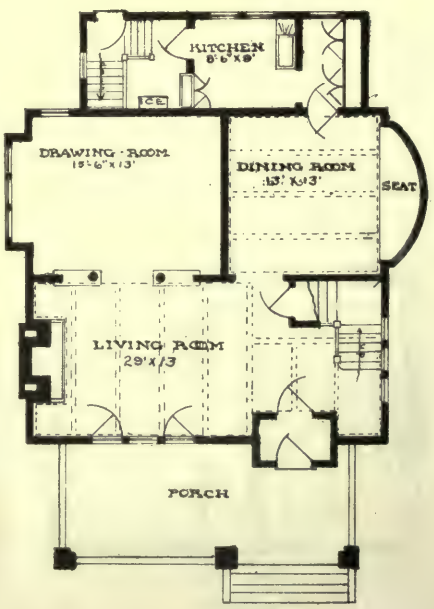
F. E. Colby, Architect

A Stucco House of Frame Construction

DESIGN B 219



SECOND FLOOR PLAN



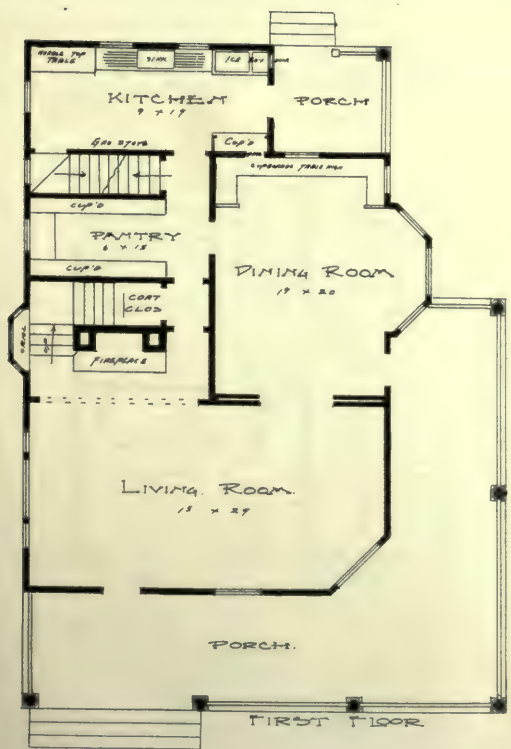
FIRST FLOOR PLAN

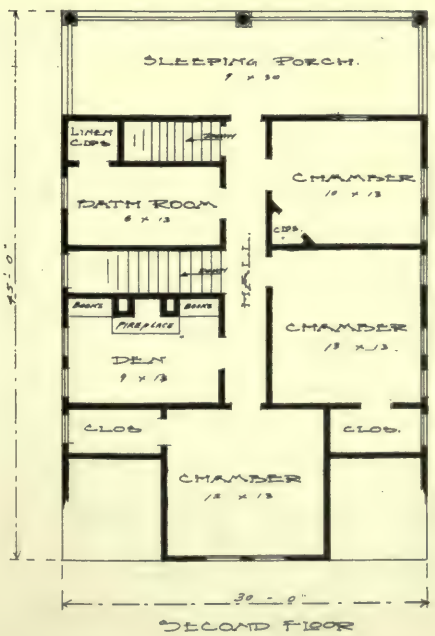


Arthur C. Clausen, Architect

A Lakeside Home

DESIGN B 220



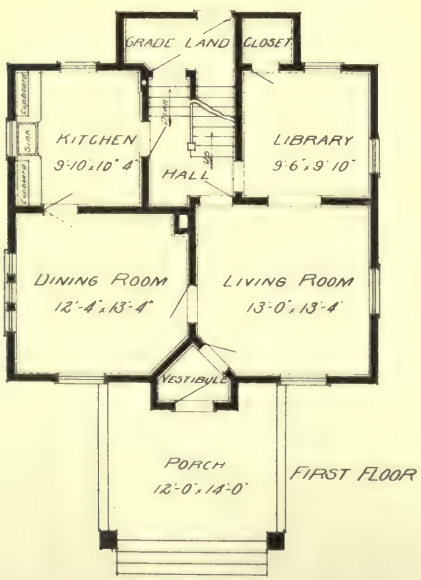


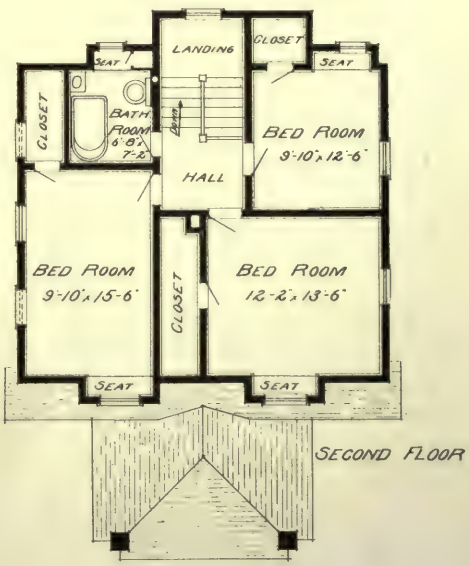


A. M. Worthington, Architect

Gambrel Roof and Dormer Treatment

DESIGN B 221







Designed by the Owner

A Bungalow with a Court

DESIGN B 222





Conducted by ELEANOR ALLISON CUMMINS, Decorator, Brooklyn, N. Y.

Why Blue Schemes are so Seldom Pleasing.

NO color is really so popular as blue, no other is so often hopelessly ugly when applied to decoration. If you have half a dozen tables at a fair, each decorated and furnished in one color, you may be fairly certain that the blue one will be the unsuccessful one. Part of this is due to the fact that many blues change their tone in artificial light, but making due allowance for this still the results are often very disappointing.

Blue China.

One might assume that blue china would fit into a blue scheme, but it takes the hand of an artist to compose such a scheme. Put your blue china in a green room; relieve it against a clear pale yellow; best of all make it the strong color note of a composition in low toned golden browns, but do not mix it up with a lot of other blues.

Blue Blues and Green Blues.

We seldom realize how seldom blue materials, whether papers or textiles, are free from a tinge of green. This is not objectionable, a turquoise blue being one of the most beautiful colors imaginable. But you do not want a room done up in many shades of turquoise blue. Put it with grayish green or with greenish yellow and it is enchanting, but by itself it is overwhelming. The blue for a whole color scheme must be pure tone, modified if needs be only by white or black. You find the sort of blue in Delft china, and in Nankin porcelain, and rightly managed it affords a color scheme of great beauty and refinement. But it is coloring which admits no rivals and you cannot introduce any other positive color.

Sectional Furniture.

One of the developments of the mortise and tenon construction so extensively used in the making of Mission furniture, is the shipping of furniture to the consumer from the factory in sections, requiring for their putting together a very small amount of mechanical skill. Naturally this sort of furniture is limited in its scope, as it cannot have permanent upholstery, but within well defined limits there is a very considerable choice. Furniture of this sort is made from selected oak of the quality used for the better grades of furniture, and can be had already stained and polished, stained to order, or sent out in the natural wood, for the purchaser to finish himself. As compared with the prices charged by dealers, the cost of the sectional furniture is about half the retail price for furniture of the same quality. For instance, a library table of very simple construction, with a circular top, forty inches in diameter, cross braced legs and a circular under shelf is sold for $9.25, while its price in a retail shop would be from eighteen to twenty dollars. Moreover it can be had in unusual finishes like Early English, Nut Brown, Weathered Green and English Oak, which are seldom found in ordinary stocks.

The Occasional Bed.

So few city houses have a permanent guest chamber that it becomes necessary to have an extra bed in one of the living rooms. Enlightened taste frowns upon the once popular folding bed and its place is taken by some sort of a couch, either a box couch or a wire cot with a mattress. The latter is by far

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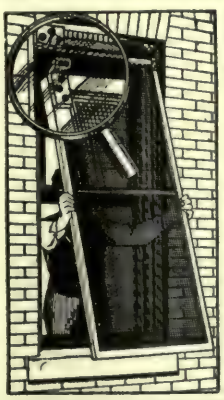
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the most comfortable, as the bed can be made up and the whole concealed by a drapery. It is almost impossible to make up a bed upon a box couch as there is no way of tucking in the clothes. Some box couches are made with a detachable mattress. They cost more but are worth the difference if it can be afforded. A box with a hinged lid, six feet long, a foot high and two feet six inches wide, well castered, can be made at small expense and plainly covered with cretonne or tapestry. The hair or cotton mattress should be covered with the same material, with welted edges, and carefully tufted. The whole thing will cost less than the ready made article and be far more satisfactory, as the box couch is usually upholstered with sweepings, or shoddy, or something equally unsanitary. When not in use the bedding can be tucked away inside the couch.

Space Saving.

In limited quarters one needs to apply the principle of the sky scraper. We may very profitably build cupboards high up on our walls, in which things not in immediate use can be stored away. The writer recalls a clergyman's study, in a parish house building, in which the fireplace occupied an alcove, with bookshelves built in at either end. The ceiling of this ingle nook was three feet lower than that of the body of the room, and the space was closed in with an arrangement of sliding panels. To be sure this closet was only to be reached with the assistance of a step ladder, but it held an endless variety of things not often wanted.

Hanging bookcases and cabinets are less common than they were a few years ago, which is a pity, for, aside from their convenience they were good for breaking up a long wall space. The smaller bamboo book cases can be hung with excellent effect if the legs are cut off and their places supplied by small turned knobs. Their proportions are seldom very good, and they are improved by cutting off one shelf.

Another saver of space at a lower level is a plate rack. In fact, most small dining rooms, such as one finds in city apartments and the average small suburban house, would be much improved if the sideboard were dispensed with altogether and its place supplied by a good sized serving table, with a long plate rack above it. A plate rack is particularly effective where all the china is in one color, and jugs as well as cups hang from its hooks, and it is quite permissible to have a number at different places on the walls. There is a sort which is more elaborate than those usually seen, which has, beside the places for plates and cups, a section inclosed with glass doors, and is really a hanging closet.

The Old Fashioned China Closet.

In old houses one sometimes finds a closet between the parlor and the dining-room. It is reminiscent of the days when women took great pride in their housekeeping, and were glad to have their china displayed to the best advantage for the benefit of their guests. It is a fashion worth copying in the modern house. Such a room, with a window in it, lined from floor to ceiling with cupboards with leaded panes, with commodious presses for linen, has a dignity never attained by the butler's pantry.

The Dining-Room as a Living-Room.

In reading English books on house furnishing one notes the fact that in the average family the dining-room is used for many other purposes besides eating. There the preference seems to be for a few really spacious rooms on the ground

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floor, rather than for a number of contracted ones, each devoted to a special use, and doubtless there is much to be said for their point of view. The average American house is huddled, and a huddled house is never dignified.

But there are manifest disadvantages in using the same table for writing and for dining, and books and china are incompatible in the same cupboard. Therefore the English architect arrives at a compromise and builds his large living room with an annex, a sort of alcove, in which he places the dining room furniture, perhaps separating it only by curtains, possibly with sliding doors, from the rest of the room. This arrangement is sometimes used here in bungalows and other summer houses, but it would seem also to have its merits in a house built for permanent occupation. Of course the alcove would have to be so placed as to have a door into the kitchen. An alcove of this sort might well differ in color and furnishing from the larger space adjoining it.

Walls Without Pictures.

English designers of wall papers draw a distinction between the wall which is to serve as a background for pictures and that which is a decoration in itself. For a room to be hung with pictures they design a paper which is practically a monotone. It may have an elaborate pattern, but that pattern is so well balanced and printed in such slightly varying tones of the same color, that it differs from a plain surface only in having a suggestion of irregular elevation, or of texture. But for the wainscoted room so common over there, with its very limited area above the paneling or for the room with many large pieces of furniture, cabinets and the like, standing against the walls, requiring the relief of strong color and bold design, they make a wall paper which is a picture in itself. Such were the papers designed by William Morris, and Voysey and Heywood Sumner have followed in his footsteps. As to the use of these decorative papers, which are imported and can be had in the large Eastern cities, and probably elsewhere as well, the hall of a good sized house, or possibly the library with very many books, seems to be about the only room in the American house in which their use is possible. The many papers copying brocades occupy a position between the two, but they are only suitable for a drawing-room or reception-room. If one can acclimatize one of these decorative wall papers, the beauty of its design and the exquisite balance of its coloring will prove a very real satisfaction.

Hanging Miniatures.

Miniatures lose much of their distinctive charm by being hung with other pictures. A group of miniatures of different periods and styles of painting is far more interesting than any number of isolated examples. A narrow space on the wall, between two windows or doors, or at one side of a high cabinet, may be utilized for a group of miniatures. They need a special background. Miniatures in strong colors, or those of men, look best against a red background. Those in more delicate colors, like the average of eighteenth century portraits, are admirably relieved against a ground of grayish green, or of old gold. For a few miniatures of varied styles, a dark old rose is as good a background as can be had, and in all cases the ground should be velvet or some other piled fabric. Attach the strip of velvet, hemmed at sides and end to the wall just below the picture moulding, standing some article of furniture so that its lower edge is hidden.



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ANSWERS TO QUESTIONS
ON INTERIOR DECORATION

Editor's Note.—The courtesies of our Correspondence Department are extended to all readers of *Keith's Magazine*. Inquiries pertaining to the decoration and furnishing of the home will be given the attention of an expert.

Letters intended for answer in this column should be addressed to Decoration and Furnishing Department, and be accompanied by a diagram of floor plan. Letters enclosing return postage will be answered by mail. Such replies as are of general interest will be published in these columns.

H. R. K.—I desire to ask some advice regarding the inside finishing of a simple country home, facing west, rough sketch of which I enclose herewith. I desire color scheme for paper, painting, unholstery and rugs suitable for each floor. I wish something durable and as inexpensive as possible, yet at the same time desire it artistic and in good taste. Would paint or linoleum be better for kitchen floor, and what for dining-room.

The kitchen is to be painted, the parlor and living-room plastered, the remainder of the rooms ceiled and papered. The rooms are small, about 16x18, and it is desired to make them look as large as possible, as well as the halls. I had thought of a light brown oak finish for the woodwork, thinking the light would be better than a dark color to make the rooms look larger, but have decided on nothing. Tell me how the floors should be finished around the edges of the rugs, also give complete information regarding the finishing of the open fire places, which are in each room, and which are made of plain red brick. We have no expert workmen near, so will ask that all terms be as plain as possible, in order that they may be thoroughly understood and carried out.

I enclose some samples of paper for help as relates to color only, and if you can find in them something suitable, it would aid materially in getting the paints and colors. We had thought of having the plastered walls painted, but the halls, dining and bedrooms will be papered, and it seems that only solid colors in paper would be suitable and harmonize. Would not solid colors tend to make the rooms look larger? The writer is partial to solid colors always, but it is hard to obtain the same here, and if you can do so, would like you to give me the name of a house from which I might obtain same. We had thought of a straw color for walls and cream for ceiling of parlor, but as this is a south room, fear the color would be too warm, but it might be used in a north room, if harmonious with the scheme you suggest, so leave that to you. Please mention the length that the drop ceiling should extend down the walls. The rooms are only moderately high.

H. R. K. Ans.—I have made selections from the paper samples sent and attached them to your plan sketch. Plain walls are good, but I should certainly use a figured paper in the hall. One of the new landscape papers in all gray tones, would be exceedingly pretty in a southern hall with ivory woodwork. The woodwork in parlor should be ivory, like ceiling and the two chambers should have white woodwork. The light brown paint would give a dingy characterless interior. Do the living and dining-room woodwork with stain of the manufacturer whose name I enclose, thinning it and putting it on light. It will be a hundred times prettier even on pine than brown paint. Your rooms are not small, and the brown stain will not make them look smaller. The floors should be stained oak all over, shellaced and waxed.

Your fireplaces should have simple wood mantels to match the finish of the woodwork in each room. Do not drop the ceilings at all, unless the walls are more than 9'6". Linoleum is the best choice for the kitchen floor.

H. P. T.—Enclosed please find a sketch of the first floor of my new home. Will you kindly help me in deciding the colors for the walls which are to be tinted. The woodwork and furniture are golden oak and the floors hardwood. The house is on a corner lot facing north.

H. P. T. Ans.—With golden oak woodwork it is advised to tint the hall a golden brown with cream ceiling: the living-

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room a soft ecru, with ceiling very light shade of same; and the dining-room walls old blue, with paler shade for ceiling. This will suit the southwest exposure of dining-room, while the ecru and brown tones are best for the north light.

Mrs. W. B. H.—I wish to have my cottage redecorated this fall and will appreciate suggestions from you in regard to wall papers, woodwork, hangings and floor coverings. The woodwork in all the house is the natural pine just hard oiled, but it doesn't harmonize with each room. I would like to have your ideas on the subject. Nearly all my furniture is quarter sawed oak. Can you suggest finishes for walls and woodwork to harmonize with furniture. If I stick too closely to buffs, creams and browns won't the effect be very dull and lifeless?

The house faces east which is very desirable in this climate.

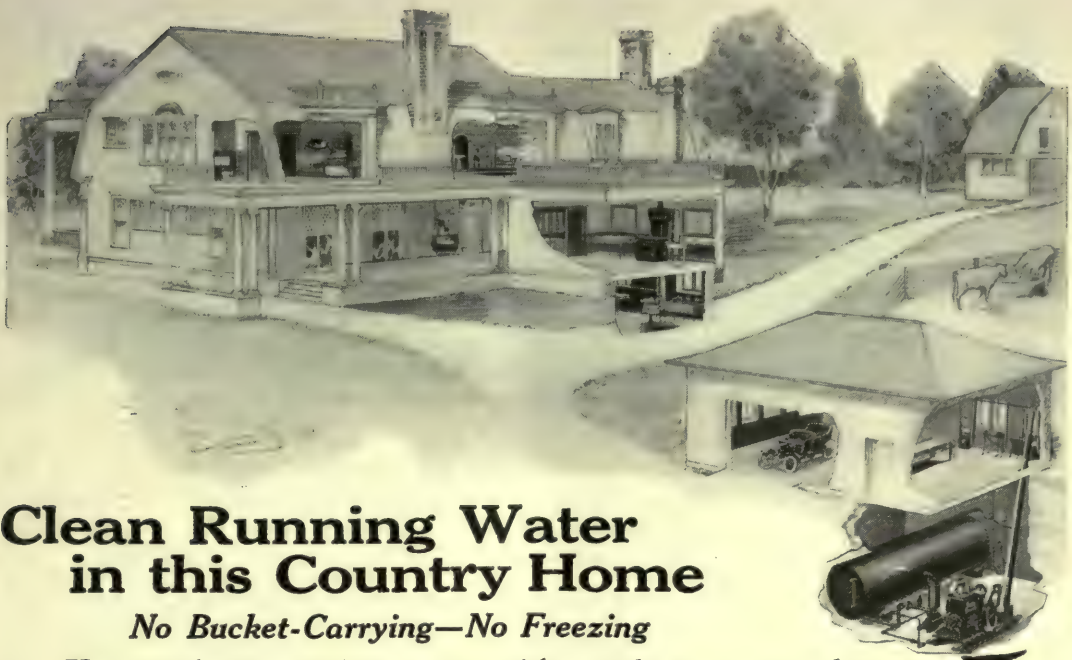
Mrs. W. B. H. Ans.—Replying to your recent letter asking for suggestions on interior decoration would say that if it is desired to retain the oiled pine finish in living and dining-room, you cannot do better than keep these rooms in browns and creams, especially as they are on the north side of the house. They need not, however, be dull and lifeless. The rugs can introduce rich notes of color if ornamental, though rugs in brown shades with touches of yellow and cream would be better. The dining room could have a frieze of trees against a sunset sky or a frieze of autumn leaves. There are lovely curtains of ecru scrim with scattered figures in light green and gold. In the living-room, a closer harmony in browns would be very attractive. We should advise, however, painting the woodwork of parlor and bedrooms, ivory white and using on the wall of the east parlor a light gray paper in self-toned all-over design. Have your furniture upholstered an artistic cretonne, the ground well covered with a tapestry design wherein dull reds, yellows and deep blues are blended. In one bedroom the walls could have a light blue chambray paper and the curtains, chair covers, bedspreads and bureau covers of flowered chintz showing much old rose on a mode ground. With such a treatment even oak furniture could be used with the white woodwork. The thing is to get the right cretonne.

Mrs. J. E. M.—I want to get some information in regard to the wood finish and color scheme in my new house. The house is a story and a half bungalow type, faces east, with an east and south gallery. The living-room and dining-room are on the front, facing east. The dining-room has panel wainscoting up to plate rail, and I want to know what color to stain the wainscoting and what color paper to use above. I have Mission furniture, Early English, also a green art square with little shades of tan and black that I wish to use in this dining-room. The living-room opens into dining-room with plain square opening, with sliding doors or portieres; has fireplace, three windows in east or front and two in south. I want to use weathered oak Mission furniture in living-room, so please suggest color for paper, wood finish and color of brick for open fireplace. I prefer solid color, ingrain papers. There is a bedroom back of the living-room, with fireplace and two windows in south. This room opens into back hall, also onto gallery on the side. Please suggest color scheme throughout; the furniture for this room is in quarter sawed oak.

Mrs. J. E. M. Ans.—In reply to your inquiry, desire to say that inasmuch as the furniture of all the rooms mentioned is oak in some of the brown tones, the stain used for the woodwork had best be of uniform stain throughout of the kind stated in our letter. This will be in harmony with the different finishes of the furniture and have a more restful effect than if you tried to match each room exactly to the furniture.

Since the dining-room rug is green with tan, the wall above the wainscot could be a soft tan with ceiling a lighter shade. As this is an east room, curtains of yellow silk would give warmth of color.

The living-room wall could be a dull grey-green with fireplace facings of dark, rough surfaced brick of a greenish hue with undertones of dull red. The oak furniture of the south bedroom will be well relieved against a wall of soft old blue, with chintz curtains and bedspread in soft dull old rose and blue.



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You can have running water with ample pressure—clean, pure, and palatable—in every part of your home, no matter where you live, and avoid the annoyance and danger of gravity tanks forever, when you own a

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Make the Water System you install a permanent investment. Own the plant that furnishes you dependable **fire protection** and that will be a source of satisfaction for a lifetime. This the *Leader* is doing for fourteen thousand **others**—it will do the same for **you.**

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Without cost or obligation, mail me your book "*The Question of Water*," with full particulars about Leader Water Systems.

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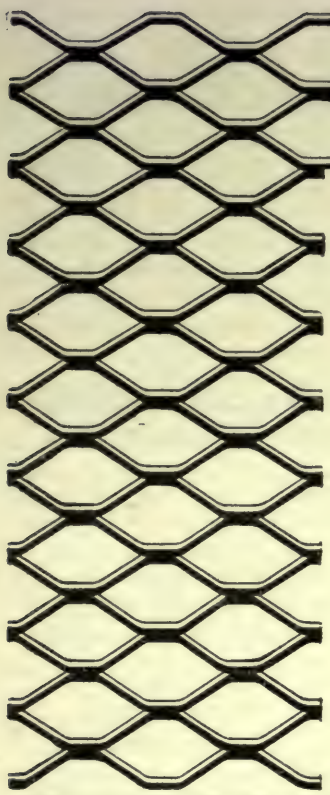
A Recent Controversy.

AN animated discussion has been going on in one of the New York dailies as to the respective demands upon the mind of an educated woman of professional and domestic life. A great wail has gone up as to the cruelty of expecting women who have received a liberal education to bring their minds down to trivialities like buttons and porridge, important as these may be to the welfare of a family. It was assumed of course that all educated women are engaged in highly intellectual pursuits and the emancipated are having it all their own way, when "A College Bred Insurgent," came forward with the assertion that, having married after a number of years of more or less successful professional life, she has found that the successful conduct of a household of husband and children makes greater demands upon a trained intelligence than most of the work done by women in other spheres of activity. She points out the fact that very much of so-called professional work is monotonous in the extreme, an unending round of trivial repetition, giving as examples teaching, the bulk of the work done by women in publishing houses and as editorial assistants, and the occupations described by that very ugly word, secretarial. She declares that her present state has a varied charm in its constant opportunities for the exercise of every sort of natural or acquired ability, which was utterly lacking in her admittedly successful professional career.

Following suit, various other ladies of similar experience have hastened to corroborate her statements, until the professional woman, so far from being enviable is made to appear the victim of circumstances, professional only because she has had no chance to be anything else.

Of course there are exceptions. There are women naturally destitute of the all-around ability which the housekeeper needs, who yet specialize admirably. The routine character of most of the professional work open to women is not objectionable to them, may even be helpful to their partcular type of mind. But most women are different. They are impulsive and spontaneous, geting at things intuitively rather than reasonably, and these are the qualities which go to make the successful head of a household and, in the last analysis, these are the traits which make a woman lovable and good to live with, and not to be compensated for by any merely intellectual qualities. The value of mental training for the average woman is not to fit her for the doing of distinctly intellectual work, but to enable her to use her native abilities to the best advantage. College ought not to make a woman superior to ordinary work, but fit her to do it better, by giving her a better standard of values and by teaching her to adapt means to ends with absolute accuracy. Moreover, even a smattering of science, and most colleges give much more than a smattering, is of the greatest value in a calling so largely concerned with nutritive values and the chemistry of food as that of the modern housekeeper.

When all is said and done, the whole contention harks back to this; that whatever is set before a woman to do is her profession, not less the ordering of a



Jack's House No. 2.

This is an exact reproduction of the lath which Jack used on the exterior of his house, which he covered with Portland Cement Stucco.

It is KNO-BURN expanded metal Lath. Jack found full information in booklet "O" which is sent out to anyone interested if they write to

North Western Expanded Metal Co.

930-950 Old Colony Building
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[See Jack's House Next Month]

Fresh Air and Protection
against intrusion can be had with the
IVES WINDOW VENTILATING LOCK

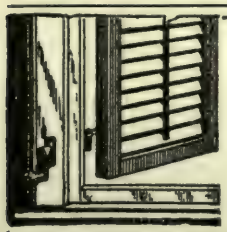


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Standard Shutter Worker

The only practical device to open and close the Shutters without raising windows or disturbing screens.

Can be applied to old or new houses, whether brick, stone or frame, and will hold the blind firm in any position.

Perfectly burglar proof.

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Burglar Proof.

Made in three sizes and when light is desired can be furnished with a Rubber-Glass Window.

Write for Address of Nearest Dealer.

Majestic Furnace Co.
HUNTINGTON, INDIANA.

house and the rearing of children than medicine, or law, or pedagogy, or any other of the avenues of activity which the development of the forces of modern life has opened to her.

The Household Refuse.

What to do with the rubbish of the house, garbage, sweepings, papers, all the thousand and one things which accumulate so rapidly, is a puzzle in places where there is not a regular system for the removal of all this debris. The intelligent housekeeper will try to find some means of its disposition, other than that of absolute destruction, but always of a sort which will not be a nuisance to other people.

Pigs seem to have been created for the purpose of acting as scavengers, but it is seldom practicable to keep a pig, and the one decent and sanitary thing to do with garbage is to burn it. Many people have an unreasoning prejudice against this, being certain that it must smell. So it will, if a damp mass is laid upon a slowly burning fire, but if it is put on by degrees, when the fire is glowing, the chimney draft opened and all the others closed, there is no odor at all. Large things, like watermelon or squash rinds can be dried out before being burned by being laid over the oven, under the back lids of the range. It may be half a day before they can be poked over onto the coals, but ultimately they will reach the disintegrating point.

Sweepings can usually be burned, also scrubbing cloths and the like, which can be helped to extinction by having a little kerosene dripped over them, putting a layer of paper on top so that the match will not come in direct contact with the oil. Garbage, sweepings, old cloths, all these are unwholesome refuse for which nothing but destruction will answer. Letters and waste paper should share the same fate. But let the stamps be saved as there are many charitable institutions which collect them.

The Worth of the Cancelled Stamp.

This, by the way, has long been a puzzle. Vague legends as to the value of a million stamps have floated about for many years, but the facts are well known. Cancelled stamps are used in large quantities for the manufacture of papier mache, being forwarded to Switzerland through an agent in New York, a barrel at a time.

The Useful Newspaper.

The discarded newspaper has many uses which should save it from destruction. The kitchen should always have a pile somewhere within easy reach. Lay down papers on the table when you are making cake; spread them under the ironing board and use one to wipe the iron on; spread a thick layer under the ironing sheet and blanket to protect the table; have two or three, thickly folded, upon which to set dripping pans and saucepans when they are taken from the range; have a pad of them in front of the sink and at the side of the table where one stands to cook, where they are a fair substitute for a rubber mat.

Many other uses will suggest themselves, and the surplus can always be sent to a paper mill. In some places considerable sums have been realized for charities by the systematic collection of newspapers, for which a good price is paid by the ton.

Do you ever think when you are packing a missionary box to fill in the corners with pieces of brown wrapping paper and rolls of tissue paper? These things, the commonplace of towns, are treasures in remote places, and the same thing is true of string.

HESS MEDICINE SANITARY CABINET LOCKER

THE only modern Sanitary Steel Medicine Cabinet or Locker. Handsome beveled mirror door. Snow white, everlasting enamel, inside and out.



FOR YOUR BATHROOM



Costs less than wood and is better. Should be in every bathroom. Is dust, germ and vermin proof and easily cleaned with warm water.

Made in four styles and three sizes. Price $7.00 and up.

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Sold on Approval. Free Booklet.

Write for Our Free Book *on* Home Refrigeration

It tells you how to select the Home Refrigerator—how to know the good from the poor—how to keep a Refrigerator sweet and sanitary—how your food can be properly protected and preserved—how to keep down ice bills—lots of things you should know *before selecting any Refrigerator*.



Always sold DIRECT and at Factory Prices. Cash or Monthly Payments.

Don't be deceived by claims being made for other so-called "porcelain" refrigerators. The "Monroe" has the only real porcelain food compartments made in a pottery and in one piece of solid, unbreakable White Porcelain Ware over an inch thick, with every corner rounded, no cracks or crevices anywhere

The "Monroe"

A Lifetime Refrigerator

is the only refrigerator that can be made "hospital-clean" in a jiffy by simply wiping out with a hot cloth There are no hiding places for germs—no odors, no dampness. The leading hospitals use the "Monroe" exclusively and it is found today in a large majority of the very best homes. It is built to last a lifetime and will save you its cost many times over in ice bills, food waste and repair bills. Other refrigerators must be made with sections to come apart—bolts, screws, braces and strips to work loose—and with cracks, crevices and corners in which food collects and decays—germs breed and odors arise to taint the food placed therein.

The "Monroe" is never sold in stores, but direct from the factory to you, **freight prepaid** to your railroad station, under our liberal trial offer and an ironclad guarantee of "full satisfaction or money refunded."

Easy Payments We depart this year from our rule of all cash with order and will send the "Monroe" freight prepaid on our **liberal credit terms** to all desiring to buy that way.

Just say, "Send Monroe Book," on a postal card and it will go to you by next mail. (8)

MONROE REFRIGERATOR COMPANY, Station 6, Lockland, Ohio

NO DELAY TO GET THE CLOTHES DRY ON WASH-DAY

When using the **"CHICAGO-FRANCIS" Combined Clothes Dryer and Laundry Stove.**



A Modern Residence Laundry Room showing installation of "CHICAGO-FRANCIS" Dryer and Laundry Stove

Clothes are dried without extra expense as the waste heat from laundry stove dries the clothes. Can furnish stove suitable for burning wood, coal or gas. Dries the clothes as perfectly as sunshine. Especially adapted for use in Residences, Apartment Buildings and Institutions. All Dryers are built to order in various sizes and can be made to fit almost any laundry room. Write today for descriptive circular and our handsomely illustrated No. K 12 catalog. Address nearest office.

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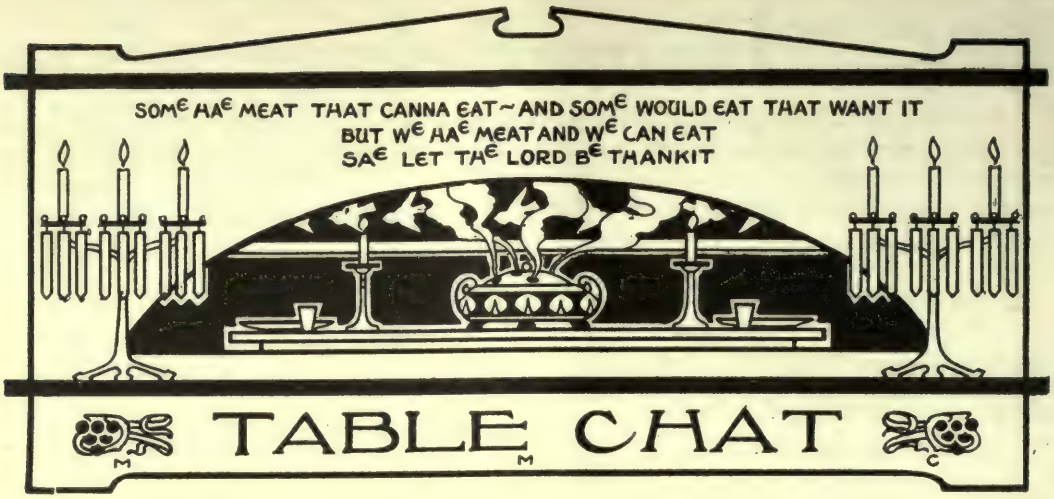
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No. 296 PEARL ST. - - NEW YORK CITY



Mid-Winter Table Decorations.

THE flower par excellence for February is the hot-house tulip, with its delicious shading from pink to deep cream. It is the least bit stiff, but when a mass is spread out in a low glass bowl, the straightness of the stems is not specially noticeable, so satisfying is the color. Or, for a long table they may be used in three glass vases, a taller one in the middle, a smaller one at each side of it, the tulips arranged with asparagus fern. Such flower holders can be had in sets of three or five, connected by chains, but the effect is rather set. They look better when isolated. Now that epergnes have come back, one may construct a pyramid of fruit in the centre of the table, with flowers at the corners in rather low vases.

Fern dishes are deservedly popular, but are very hard to keep in good condition in highly heated houses. It is almost necessary to remove them to a cool place between meals, unless one is willing to renew them every few weeks. And, apropos of ferns, beautiful fern dishes have been made from old-fashioned silver plated casters, not the revolving sort.

A permanent table decoration which is pretty and unusual is a dwarf tree. The fashion is a Japanese one, but the tiny tree can be had from city florists. It may be planted in some sort of a flower pot, or rise from a mound of moss arranged on a tray.

Faience Receptacles.

Coburg faience is ivory white, and it comes in curious forms, suggesting the balustraded parterres of a formal French garden. There is usually an inner and outer receptacle and the flowers and foliage are arranged in the space between the two. Of course only very small flowers can be used and the effect is formal in the extreme. Candle sticks can be had to match. Some of the faience is plain, other gilded.

Far more beautiful, if less novel, are the small oblong flower boxes in ivory Italian terra cotta, with decorations in relief, generally classic ones of figures and animals. The smaller sizes are good for small flowers like violets, with a glass or metal receptacle inside, or they will hold three or four small ferns. The beautiful tones of the faience contrast delightfully with the colors of the flowers or foliage.

Using French Chestnuts.

Most of us are very conservative about trying new articles of food. We stick to our old friends and are blind to the merits of any others. But in cities where there is a considerable foreign population new articles of food are often brought to one's attention, some of them with substantial advantages over those to which we are accustomed. The French or Italian chestnut, for instance, is better and cheaper than our own nut, and has the advantage of always being in season. For those who are unfamiliar with it, it may be said that it is nearly as large as

There's a Reason Why

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FLEXIBLE-CEMENT-BURLAP-INSERTED **MATERIAL**

FOR ROOFING and SIDING



Summer Homes, Bungalows, Garages,

Barns, Residence, Business and Factory Buildings—

It Is Because *Burmite* Has Been Found

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Artistic and Attractive in appearance, **Durable** and **Economical** with **Superior Fire-Retardative** and Weather-Resisting Qualities to meet **Extreme Weather Conditions.** Sparks, Hail, Sleet, Sliding Ice, Rain, Snow, or the extremes of **Cold** and **Heat** do not affect its superior Upper Coating, which is made with two separate and distinct surfaces, i. e., **BIRD SAND** and **"TWOLAYR" SLATE CHIPS.** (Patent Pending.)

For the **"TWOLAYR" Slate Surfaced Material,** Natural Colored Slate of **Unfading Quality** is used, the fine slab-shaped Slate Chips being embedded into the **Pure Asphalt Composition** so thoroughly— **and put there to stay**—that a smooth, even upper mineral surface (there being two layers of the slate chips) is the result, thus securing the well-known IMPERVIOUSNESS and WEATHER-RESISTING QUALITIES OF SLATE, AT **ONE-FOURTH THE COST.**

2 Permanent Natural Slate Colors } SLATE-RED and "Stoddard" SLATE-GREEN | **UNIFORM SOLID SLATE Surface. Requires no Painting. Kept Clean & Bright by the Rain.**

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PLANT, 56th, Armitage and Grand Aves. **CHICAGO**



Rich Table Effects

in silverware are always to be had in the famous **1847 ROGERS BROS.** silver plate, a fact that is well worth remembering when newly furnishing or replenishing the home.

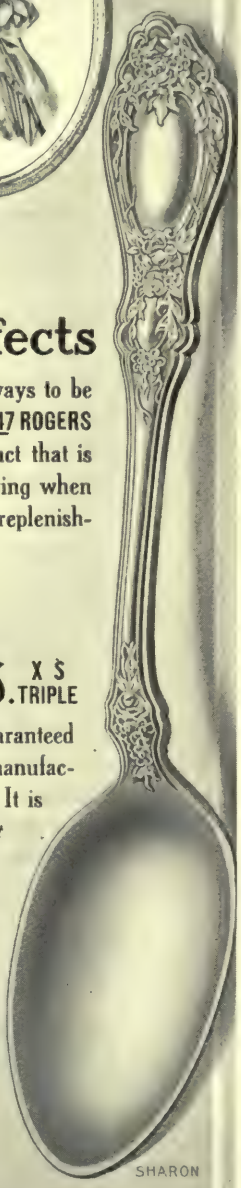
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A new pattern—the "Sharon," is illustrated here. It has all the richness and charm of solid silver.

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MERIDEN BRITANNIA COMPANY
(International Silver Co., Successor)
Meriden, Conn.
New York Chicago San Francisco Hamilton, Canada

a horse chestnut and neither as sweet or as mealy as our own.

Italians use chestnuts not as a dainty but as a staple article of food. They cook them whole or make a puree of them. They are also served as a salad and used for various sauces and entrees. Perhaps their commonest use is as a stuffing for poultry, for which they are boiled and mashed fine, a cup of chestnuts added to each cup of plain bread and butter stuffing, with a little cream, a dash of cayenne and a very little hot water. The stuffing should be tender but not moist enough to be soggy. The chestnuts are of course cooked in salted water, an end of the shell being cut off before they are put in. An old fowl can be stuffed with this mixture and braised, after the fashion of a pot roast, and is extremely good.

A puree is merely the boiled and mashed chestnuts put through a sieve, seasoned exactly like mashed potato. It may be thinned out with a little stock and served as a border to chops, in a ring of jellied chicken, or with fillets of fried fish.

Again the chestnuts are boiled in stock, mixed with a cream sauce and served as an entree in a hollowed out loaf of bread browned in butter. Or small rolls can be used instead of the loaf.

For a salad, have the chestnuts boiled, peeled and chilled, mix them with a few chopped green peppers and capers and lay them on heart leaves of lettuce, covering with a mayonnaise made of lemon juice instead of vinegar. Chestnut soup is merely cream of chicken seasoned with salt and paprika, to which a suitable quantity of mashed chestnuts is added, the whole cooked slowly fifteen minutes and strained. Serve it in bouillon cups for a first course at a company luncheon.

A chestnut sauce for puddings or ice cream is made by simmering boiled chestnuts in sugar syrup, with a little sherry and grated orange peel, covering the saucepan tightly so that the wine will not lose its strength. That very expensive foreign sweetmeat, marrons glaces is neither more nor less than large chestnuts cooked till tender, shelled and skinned, dried in a cloth, and simmered in thick syrup.

A Use for Princess Lamps.

Or is their vogue so long passed that even the name is forgotten? They were small lamps with a standard and circular oil tank, the whole of porcelain, very popular with china painters some fifteen years ago, and many of them must survive. Fitted with some sort of a fluffy shade, they are extremely pretty for opposite corners of a supper table, taking up less room than candelabra and giving more light. The writer is under the impression, possibly erroneous, that she has seen them in the popular colonial glass. Lamps have one substantial advantage over candles that they are very much safer. With the flame protected by a chimney the most nervous hostess may be at ease.

New Paper Napkins.

Extremely dainty paper napkins for supper parties are of white crepe paper with pinked edges and inch wide borders, either pink or green, with three or four gilt lines inside the color. They cost twenty-five cents a hundred.

Colors for February Festivities.

Loncoln's birthday seems hardly acclimatized as yet, but the national red, white and blue is certainly the most appropriate coloring for the great patriot. Scarlet is sacred to St. Valentine, as being the color of hearts, but blue ribbons and pink roses have equally sentimental associations, while the Continental uniform colors of blue and buff are as suitable for Washington's Birthday and a much more effective decorative scheme than the stars and stripes.

Duck and Oranges.

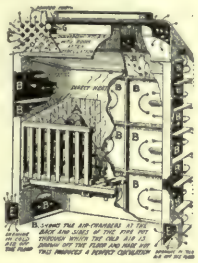
Thick slices of acid oranges as a garnish for roast duck are common enough, but try the combination of dice of cold duck with double the quantity of sliced oranges, dressed with salt, oil and paprika, with a garnish of olives, and served on lettuce leaves for a Sunday night supper.

YOU can get as much heat with one Aldine Fireplace and save 60 per cent of your fuel bill as from four common grates.



This is because it is really a return draft stove in fireplace form. 85 per cent of the heat is thrown out into the room instead of 85 per cent being wasted as in common grates.

It can be set in any chimney opening at half the cost of a common grate, no special chimney construction is necessary, no pipe to connect, extra large fire pot; made in seven patterns, at prices no higher than any good common grate.



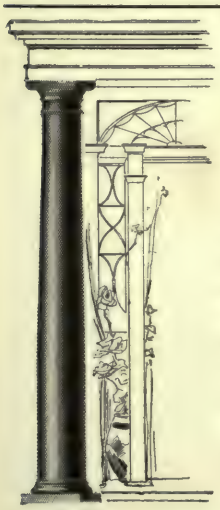
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California Redwood

Best Porch Wood known

REDWOOD withstands the weather better than any other wood suitable for porch work. Does not crack, contains no pitch, is free from knots and does not rust or rot. If you do not know what a wonderful material Redwood is for porch work ask us to tell you more about it.

The illustration shows our special "Eureka" porch column worked from 1⅛in. staves. It is **guaranteed** not to "open" up, crack or warp. Will retail $1.00 per post over any other wood, and net you a greater profit.

Talk Redwood—it means more money for you and greater satisfaction to your customers.

Write for our special folder on Redwood porch work.

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Our book No. 108-J shows our latest designs in Wood Carpet, Parquetry Flooring, Grilles and Mantels. Ask for it if you haven't a copy.

Stencil No. 106



Wouldn't you like to know in advance what colors would look best on the outside of your house?

We have a Portfolio of color schemes for house-painting which we send free on request. This shows colors in artistic combinations on actual houses. There are fifteen of these plates, each showing a different style of architecture and each suggesting a different color scheme with complete specifications for obtaining it.



Another Portfolio

This one on interior decoration

This Portfolio shows an attractive cottage bungalow, decorated and furnished throughout. Each room, as well as three exteriors, and a veranda, are shown in their actual colors, and accompanying each plate are carefully worked out specifications. Even the curtains, rugs, draperies and furniture are suggested. You can adapt any or all of these color combinations in the Portfolio, or our Decorative Department will prepare without cost special suggestion to be used, upon request.

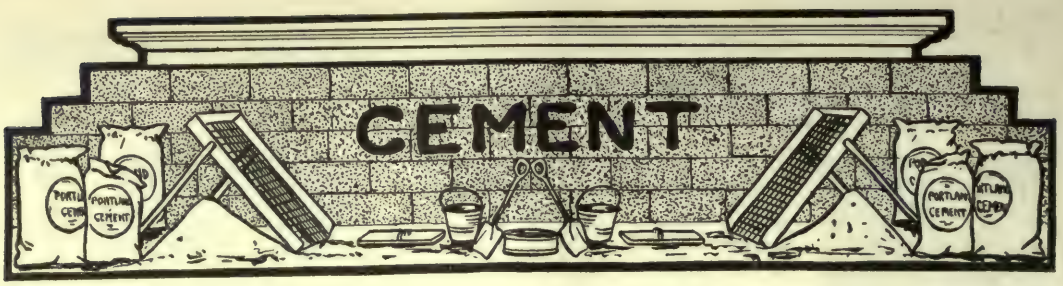


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Sold by merchants everywhere. Ask your local dealer for color cards and full information. For the Special Home Decoration Service write to the Sherwin-Williams Co., Decorative Dept., 629 Canal Road, N. W., Cleveland, O.

Stencil No. 35



The Past Year in the Portland Cement Industry.

THE Geological Survey figures for the year 1909, showing a production of nearly 63,000,000 barrels of Portland cement, was quite a surprise to those interested in the industry. The remarkable upward growth of the curve of Portland cement production is one of the greatest features of American industry, marking as it does a gain of nearly 60,000,000 barrels in output within the last decade. The development in the year 1909 was, to a very great degree, outside of the well known Lehigh district, which, in 1899, produced nearly 73 per cent of all the Portland cement manufactured in the United States, while in 1909 it produced about 36 per cent.

The growth of the industry has been generally distributed over the country, and it is becoming more and more recognized that the fundamental principle that the price of Portland cement is the mill price, plus the freight and plus the handling or, in other words, the cost to the consumer.

From figures so far gathered and made public, the indications are that the year's output for 1910 will run between 70 and 75 millions of barrels, the percentage of growth being possibly less than the average percentage in previous years. But, in considering this fact, it must be remembered that the sum total of production has grown so rapidly that a growth of 20 per cent upon the figures of the present periods would aggregate more than 12,000,000 barrels, whereas the 20 per cent average growth in previous years rarely exceeded from 6 to 8 million barrels per annum. In figuring this large increased output for 1910 much consideration must be given to the wide publicity that the Portland cement industry has had.

Impervious Concrete.

By Albert Moyer, Assoc. Am. Soc. C. E.

In the minds of the laymen, particularly a man or woman about to build a residence, the principal prejudice against concrete is dampness. This universal building material has been found so prominently successful for a variety of purposes, that nearly all prejudices have been removed. This one, however, seems to remain among those uninformed and unskilled in engineering.

Concrete properly proportioned and properly placed is probably as dense as any building material known, therefore, as impervious to water. Aggregates such as sand, gravel or crushed stone can be proportioned practically and economically so that impervious concrete results.

It is unnecessary to use patented or other waterproofing compounds with well proportioned concrete, natural methods are far more permanent than artificial. The following description of the concrete water tower which has just recently been erected at Westerly, R. I., should dispose of this subject once and for all.

The tower was erected by the Aberthaw Construction Co., of Boston, Mass. It is composed of concrete made of an average mixture of one yard of stone, one yard of sand, 2 5-11 barrels of Portland cement to one yard of concrete, and about 5 per cent of hydrated lime. The tower holds 650,000 gallons carrying a total height of 70 feet of water; inside diameter is 40 feet; the walls are 14 inches thick, reinforced with steel rods.

As the tower was made water tight by the density of the concrete great care was exercised in the choice of the aggregates and the cement; in mixing, the



Asbestos "Century" Shingle Roof—Residence of Dr. J. B. Porteous, Atlantic City, N. J.; H. A. Stout, Atlantic City, Architect; Atlantic City Cornice Works, Atlantic City, Roofers

Asbestos "Century" Shingles

"The Roof that Outlives the Building"

WHEN the roofing contractor brings you an estimate for the roof—just ask him how much repairs and painting are going to add to the first cost.

Asbestos "Century" Shingles make an absolutely permanent roof—no repairs, no painting—and their first cost is no higher than you expect to pay for a first class roof.

They are the first *practical lightweight* roofing of *reinforced concrete* and are the only indestructible roofing known to the building trade.

Asbestos "Century" Shingles literally outlive the building. They improve with age and exposure. Cannot rot, rust, crack, split or blister. They are weatherproof—fireproof—timeproof.

All over America and Europe you will find proof of the durability of these shingles on all types of buildings. The illustration shows the residence of Dr. J. B. Porteous, Atlantic City, N. J., one of the thousands of buildings in this country roofed with Asbestos "Century" Shingles.

You can get Asbestos "Century" Shingles in three colors—Newport Gray (silver gray), Slate (blue black), and Indian Red—in numerous shapes and sizes. Ask your responsible Roofer about Asbestos "Century" Shingles. Write for our illustrated Booklet—"Reinforced 1911"—full of valuable information for the man with a building to be roofed.

The Keasbey & Mattison Company

Factors

AMBLER, PENNSYLVANIA

following excellent method was employed; as a little water was put into the mixer, it was followed by about half the required amount of stone; this was turned for a few minutes until the blades were well cleaned; the cement and sand were next added and finally the balance of the stone for the batch. The concrete was mixed sloppy and very carefully placed as there is no final finish on the outside surface. No water or even dampness has shown on the surface.

Earthquake-Proof Construction.

We all remember the Messina earthquake, which spread ruin and death throughout that district of Italy. Shortly after the earthquake, a royal commission was appointed to investigate the most suitable building materials and regulation for earthquake countries.

That reinforced concrete has demonstrated its efficiency for this use is shown by the following paragraph from the report of the commission:

"After an examination of the various systems of construction admissible, the members of the committee are firmly of the opinion that structures whose walls and floors are of reinforced concrete, with certain special modifications and subject to the adoption of other special materials for certain parts of the building, are best adapted to resist the various disturbances arising out of seismic movements, and, therefore, those most highly suited to combat the effects of earthquakes."—Exchange.

Penetration of Concrete by Frost.

We want to build a concrete protection to prevent a supply pipe from freezing. The pipe is 4 inches in diameter and 30 feet long. My idea was that if a boxing of concrete, two feet square, was made around the pipe it should keep out the frost.

It is generally felt that properly cured concrete is absolutely immune to frost. We should scarcely advise you to make a box of concrete, two feet on the side, around a four-inch pipe. In our judgment, six inches would be ample. The essential thing is to have an insulating air-space.

Granulated Slag in Concrete Block.

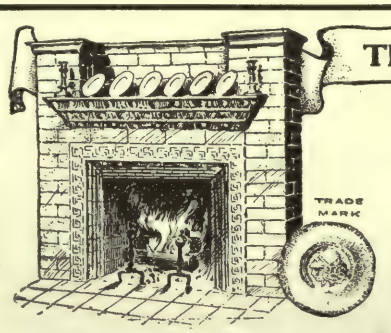
Is granulated slag ever used in the manufacture of concrete block? We have some that is sharp, but rather porous. Sand has to be shipped here and costs rather high. We can get slag cheaper.

If slag is entirely free from particles of unburned coal, and if it has weathered for a sufficient time to free it from sulphur and other impurities, it is used in concrete, but not where any great weight is to be carried. Well graded slag finds its place in curtain walls, partitions and similar construction. Slag concrete naturally possesses high fireproof qualities.

Cement Blocks With Wet Mixture.

In the following is described a successful process to manufacture concrete building blocks with a wet mixture.

The molds are filled with a rather stiff wet mixture of concrete. The facing for



The Heart of a Room

WHETHER in living Room, Hall, Den, or Bedroom the fireplace with its cheery blaze is the center of attraction. Be sure this chief decorative feature is the best obtainable, both artistically and practically. No other form of fireplace equals the brick mantel; and the best brick mantel made is the **P. & B. BRICK MANTEL**

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You can secure four times the usual amount of heat by using a

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These grates each heat two or more rooms on one or different floors in severest weather, and they will heat an entire residence with two-thirds the fuel of a furnace.

IF YOU HAVE NO FIREPLACE you can secure the effect of an ordinary open grate by the use of a MAYFLOWER OPEN FRANKLIN. Many people use them in preference to the ordinary open fireplace.

CATALOG "K" shows the Ventilating Grate. Send for this, and also for catalogues of Mantels, Franklins, Andirons, or anything else you wish in the fireplace line.

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25 Beckman St., N. Y.

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IN YOUR HOME

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Ball-Bearing Hinges

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Concrete Houses and Cottages	
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Concrete in Railroad Construction	1.00
Concrete Cottages	Free
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THE ATLAS PORTLAND CEMENT CO.
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Largest productive capacity of any cement company in the world. Over 50,000 barrels per day.

the block should be one part cement; and one and one-half parts coarse sand, which should also be a rather stiff, wet mixture. The facing is placed on the block in a ridge through the center the full length of the block. A piece of moistened cheese cloth that is wider and longer than the mold is then spread over the mold, and the face plate, which is perforated, is pressed on the cloth, the impression made, the face plate is removed and the cloth is stripped from the block.

A simple way of testing the method is to cover a little facing material with cheese cloth, and make an impression with a piece of carved molding.

The cost of 24-inch blocks based on labor at $2.00 per day, cement at $1.40 per barrel, and sand at $1.00 per yard, the body of the block being a four to one mixture, is as follows: Smooth face piece, five cents; hammered face piece six cents; and the rock face piece, eight cents. The full block (two pieces) smooth block, ten cents; hammered face, eleven cents, and the rock face, thirteen cents.

More defective walls are built by the use of too much lime in the mortar than any other cause. Mortar for wet-mix blocks requires but little lime, as the blocks are practically waterproof.

In all the walls made with one two-piece blocks the vertical joints are at the center of the open spaces in the walls, which is an advantage, as all vertical joints should be pointed or plastered over the side of the wall to insure a tight joint.

The molds are sanded before they are filled with concrete. The sides are higher than the ends in order that the face plate may be held in position when the impression is made. Wet blocks can be made faster and with less hard work than dry blocks, as there is no tamping and they do not require sprinkling and care after they are made.

Information Wanted Concerning Treatment of Concrete Surfaces.

A report has recently been issued by the committee on exterior treatment of concrete surfaces of the National Association of Cement Users, of which Mr. Leonard C. Wason, of the Aberthaw Construction Co., is chairman. It is the wish of the committee to obtain additional information from manufacturers, engineers and users of appliances and materials for coating concrete surfaces. Any information in regard to the above would be much appreciated. Correspondence in regard to same should be addressed to Leonard C. Wason, president, of the Aberthaw Construction Co., 8 Beacon street, Boston, Mass.

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and it will fill every requirement, besides giving a handsome appearance. Is of a Silvery Gray Color and Marble coated on both sides.

Comes in One, Two and Three Ply Extra Heavy and Burlap Extra Heavy.

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in that new building of yours because SACKETT insures greater comfort, better walls and will save you future repair bills.

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¶ Only the conspicuous merits of SACKETT can be presented in any single advertisement. Our booklet K covers the subject thoroughly and contains information of vital interest to YOU. Send for it, and we will also mail you a sample of SACKETT Plaster Board showing its use in connection with U. S. G. Hard Wall Plaster.

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PETRIFAX Cement Coating

Without it rain and dampness are sure to penetrate, causing damage and unsanitary conditions.

Petrifax waterproofs the exterior. It consists of a mineral base, which is carried *into the pores* of the cement by a volatile liquid, which evaporates quickly, leaving a hard yet elastic surface that will not crack, chip nor peal, even under climatic changes. To cement and stucco it gives a uniform an t pleasing color that these materials themselves never have, and without destroying their texture. Let us tell you more about this successful waterproof coating. We are always glad to answer questions. Ask for Booklet.

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Makers of Dexter Brothers' English Shingle Stains.
AGENTS — H. M Hooker Co., Chicago; John D. S. Potts, 218 Race St., Phila.; Carolina Portland Cement Co., Birmingham and Montgomery, Ala., Jacksonville, Fla., Charleston, S.C., New Orleans, La., and Atlanta, Ga.; C. M. Brockett Cement Co., Kansas City, Mo.; Sherman Kimball, San Francisco, Calif.; F. S. Combs, Halifax, N.S.; AND DEALERS.

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Your name and address on a post card is sufficient.

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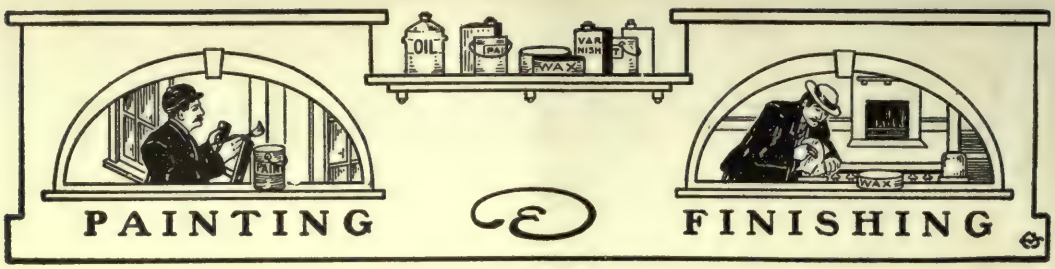
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Painting and Varnishing When Frosty.

THE nights are frosty in most parts of the country now, and it is well to remember this when having exterior varnishing or painting to do. Varnishing should be done as early in the morning as possible, so that it can set before night. Paint will not be seriously affected unless a severe frost comes, in which case the paint had better be at least partly dry before the end of the day, otherwise it may be caught by the hard frost and ruined. Light frosts do not affect paint very much, if at all, but the hard, freezing frosts will damage paint if in a fresh condition. Also, the painting on the north and northeast sides are most likely to be hurt, while that done where the wind of a frosty night does not hit will escape.

Too Much Paint Being Used?

There is no question about the value of thin coats well rubbed in and out, as the painters say. A heavy coat of paint is always a bad thing. Better four thin coats than two or three coats containing as much paint as the four thin coats. It is not so much a question of how much lead or how much oil to use, but how much to rub it out on the work. Make the paint rather stiff, but rub it out well.

What Gold Size Is.

Gold size may be either a varnish, or a more elaborate and indefinite compound. In either case it should be a quick drier and have a tough substance. The former class is preferable, as being definite. In appearance it will answer as a hard to medium dark varnish. An inferior gold size sometimes met with is made up of half-and-half boiled oil and benzine—rosin varnish, with perhaps a trace of better material to fit a certain price. The smell is frequently disguised, but a gluey appearance is against it with the careful buyer. The home-made article, used by some, is simply fat oil, produced in several ways, the most familiar being the adding of raw oil to dry red lead and allowing it to stand in a warm place for some weeks, the oil coming to the top and being then in a thickened condition.

Cleaning Paint Pots and Cups.

A very good plan for cleaning paint pots and cans, particularly small articles, is to have a pot of oil on the stove, and let it become quite hot, though not boiling, then place the vessels that are to be cleaned in the oil, which in a little time will soften up the old paint, and then it may be scraped off, the paint being added to the oil for straining and using for paint.

How to Use Paint and Varnish Remover.

It is rather costly, and one may easily waste it in not knowing how to save. First, coat the surface all over, not a little patch, but the entire surface. Let it remain on for some time, then try it; if the stuff is well loosened up, scrape it off. If not, do not scrape, but give it another coat. In this way you will finally have the entire coating of old stuff loose, when it may easily be removed entire. By doing little patches and not letting the remover have time to get at the bottom of things, you simply waste the material. Keep the can containing the remover well closed, for it is very volatile, escaping readily. These removers act slowly, and cannot eat at once through several old coats of paint or varnish; if the latter were of recent formation it would at once curl up, and then be easily scraped or even wiped off. Use a wire brush where you cannot readily use a scraper, after applying the remover.



A House White-Leaded Is a House Well Painted

It is very important that you give much thought to the painting of that house you are planning.

Paint is the protection you can give your house against the wear of time and weather. It is the only insurance you can get against these two promoters of decay and deterioration.

It depends upon the paint you use on your house as to just how much protection you are going to give that house. Poor paint gives poor protection and, inversely, good paint gives good protection.

There is one way that you can be absolutely sure of obtaining paint that will produce perfect protection for your property—real protection that will stand the assaults of time and weather and add years to the life of your house—and that is to have your painter use pure white lead and pure linseed oil paint.

See that the white lead is Dutch Boy Painter white lead—then you will be sure the white lead is absolutely pure.

Any tint, any shade, any finish.

For exterior and interior use.

Look for the Dutch Boy Painter on the keg.

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Cincinnati Cleveland St. Louis
(John T. Lewis & Bros. Co., Philadelphia)
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New Roofing Discovery

Works Wonders in Beautifying Home!



For Simplest and Grandest Homes

CHARMING Moorish beauty and dignity of appearance of Metal Spanish Tile gives an air of distinction to the home graced by this wonderful new and practically indestructible roofing.

It has taken home builders of America by storm, for it is the modernization of the wonderfully beautiful roofs of historic Spanish edifices.

The art of making this roofing, left behind by fleeing Moors driven out of Spain centuries ago, until 1910 could not be made practical for the modern home, despite its alluring beauties.

After years of experiment, we have hit the solution That is why today we are able to offer American homes the amazing attractiveness of

Metal Spanish Tile Roofing

Its scores of vital, practical advantages cost no more than common roofing, yet mean tremendous economy—it needs no repairs and outlasts several ordinary roofs because of its practically indestructible metal construction.

It is absolutely wind, weather, storm, fire and lightning proof.

Easy to apply. No soldering, no special tools—any ordinary mechanic can apply it. Interlocking system by which tiles dovetail into each other makes the roof absolutely water tight and provides for expansion and contraction perfectly—summer and winter. It is guaranteed non-breakable.

HOMEBUILDERS—Simply send us today the dimensions of your building and we will tell you by return mail exact cost of all material. Our new 1910 book on beautifying the modern American home by use of **Metal Spanish Tile** is yours for the asking. A postal will bring it. Address

The Edwards Manufacturing Co.

The Largest Makers of Steel Roofing and Metal Shingles in the World

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Make a forward and backward movement with the brush. After the remover clean up with benzine and a rag; but as this cuts rather poorly, better add a little benzol to the benzine, which will cause the fluid to cut better; or use wood alcohol. When removing old stuff from hardwood work do not get down into the filler; and to avoid this, as soon as the surface coats are softened scrape them away and wipe up with a rag wet with alcohol. If the remover gets at the filler it will remain there and injure the subsequent finish. If it gets into the filler apply more and get out the old filler and fill anew.

Raising a Ladder.

When you raise a ladder, do not raise it with one leg alone resting on the ground, but see that both legs are resting there. This will prevent strain on the ladder, which in turn causes the rounds to become loose. Also, in taking the ladder down, be careful and do not take it down on a strain, remembering that there is a right and a wrong way for doing even so simple a thing as this.

Coloring Paint in the Pot.

When you want to color or tint a pot of paint do not add the color direct from the can, but first thin it up a little with turpentine, or benzine, which is just as good for the purpose and much cheaper. It is also a clever idea to thin up some color and place it in a bottle or other suitable vessel, and have it on the job, ready to add to paint if needed. Another way to add color to paint, when mixing a batch, is to add the color to the stiff lead, direct from the color can, then work this up into the paste. A good way also for adding driers.

Free-Hand Relief Material.

Free-hand relief stuff may be made from one pound of plaster of Paris, four ounces of dry white lead and two teaspoonfuls of baking soda. Mix to a paste with cold water and fill at once into the bulb. The bicarbonate of soda prevents the mixture from settling too soon. If it is desired to have it colored, then add some dry color to the dry plaster, and if bronze is wanted then dust some on while the stuff is still wet.

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With Your Own Individual Ideas as the Key Note of the Design



OUR $5.00 SKETCH OFFER

On receipt of $5.00 and a rough diagram or description of your own ideas we will make a special study of your requirements and prepare the first and second floor plans accurately laid out to a scale with a picture of the exterior of the house as it would appear when completed, advising you of the additional charge for Complete Working Drawings, Specifications, Etc., which will be as low as is consistent with the labor involved. This offer applies to residences only costing not over $5,000 and is made simply to demonstrate to you the value of competent services in interpreting and rendering practical your *original ideas* so that the home will be a complete success in every detail.

"There is no art to find the mind's construction in the face." —*Macbeth.*

—BUT—

"The dwelling a man builds, reveals his personality, and through its halls and porticos runs the story of his life."

Now if the problem be given proper consideration, it means *time* and *time* is money. We would be speedily overwhelmed with requests if this were a *free* offer, consequently it is not free. No signed contract is asked for. We propose to make our work so pleasing and satisfactory as to demonstrate beyond a question that the *best* is certainly the *cheapest* for you. The fact that *houses* built from our designs *sell* advantageously when built proves they are *practical* and *desirable*. *This is an important matter should you wish to dispose of your property.*

REMEMBER:—It is not what *you pay for plans* that is the *real consideration*, but it is *what you get*. Why? Because upon your *plans* and especially the *details* of *construction* depends utterly the *proper* or *improper* expenditure of *all your building funds*. Quite important, is it not?

THE KEITH CO., Architects

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See that this trade-mark is on every can of varnish used in finishing your new home.

You can get other varnishes that cost less—but you will regret it if you use them.

For all floors and other woodwork insist upon

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Any dealer or painter can furnish them.

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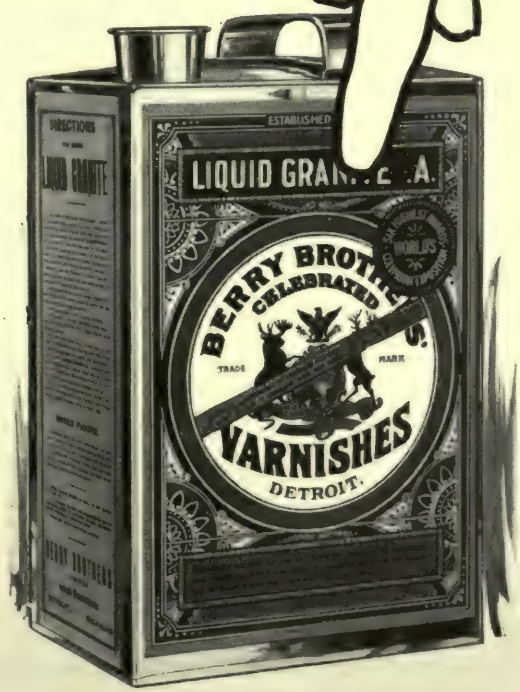
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Directions for Operating Round or Square Steam Boilers.

BEFORE STARTING a fire in the boiler see that the gauge glass is half full of water or up to the water line, also open the lower try cock and see that it contains water. The gauge glass should always be about half full of water when the apparatus is in operation, and should the water by any means get below the gauge glass the fire should be drawn and the apparatus allowed to cool down before the water is turned on. If the water is attended to at the same time as the fire all trouble will be obviated.

To start the fire, first close the check damper in smokebox, then see that the direct damper in the smoke pipe is open.

Open the draft door in ashpit sufficiently to get a good draft. Fill the firepot full of dry kindling wood and when burning well, put on sufficient coal to cover the wood. As the wood continues to burn and the coal is fully ignited, fill the firepot with coal. The damper regulator should then be adjusted so that the draft door in the ashpit and the check damper in the smoke box are closed, the damper regulator lever level with no slack in either chain. The operation of the boiler can then be controlled by the weight on the lever.

Open the feed door slide to supply air for perfect combustion. The feed door should not be opened to regulate the temperature: this can be better accomplished by the use of the dampers, with more satisfactory results and greater economy of fuel. To "keep" fire, the draft dampers must be regulated to suit the draft of chimney; no rule can be laid down in this matter, as no two chimneys draw alike; consequently each apparatus must be regulated as experience teaches and the requirements call for.

When it is desirable to check the fire and prevent the generating of steam, the chain can be unhooked from the damper in ashpit door, or the weights removed from the damper regulator.

With the water base square sectional boiler only, a direct draft damper is provided; it should be opened when first starting the fire or when the fire is low and is required to be raised quickly, at all other times it should be kept closed to prevent wasting fuel.

The fire should have attention during extremely cold weather at least three times a day. In moderate weather twice a day will be sufficient. This should be done early in the morning and late at night. To obtain good results the fire should be kept clean and perfectly free from ashes and clinkers. Keep the firepot full of coal and the grate clear of ashes. In the morning after the fire has been cleaned, put on only enough coal to cover the fire. When this is burning freely, put on sufficient coal to fill the firepot. Remove the ashes daily from the ashpit to avoid burning out the grates.

The clean-out doors on the front of the boiler above the feed door should be opened as often as necessary, to clean off any deposit which might form on the sections. A cleaning brush is furnished with the boiler and the surfaces should be cleaned off at least once a week when the boiler is in use, or oftener, depending upon the quality of the fuel used. At all other times the clean-out doors should be kept closed.

Occasionally lift the safety valve to see that it opens easily.

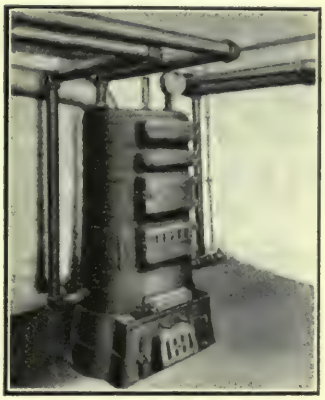
Should all the water get out of the boiler, first dump the fire, open the fire door and let the boiler cool off, before refilling. If the apparatus is to be left without fire in cold weather, draw all the water off, to avoid freezing.

A Little Boiler
That Does the Work of a Big One

Because of its perfect construction and improved design, the "RICHMOND" Round Sectional Boiler for heating homes either by steam or hot water saves fuel and saves feeding—lessens not only the *expense* but the *labor* of heating the home.

With this heating system you get all the advantages in the way of greatest fuel economy and the constant, every-day efficiency of steam or hot water heating at no greater cost than is required to install a hot air heating plant with its attendant big fuel consumption and uneven, hard-to-control heat-giving power.

This small boiler, by reason of its economy, places steam or hot water heat within the easy reach of any home owner, whether the house be new or old.



In this boiler the sections run CROSSWISE instead of up and down.

The bottom section, which forms the ash-pit, is of special heavy construction made in one piece with every provision for expansion, and no possibility of breaking.

Corrugated Fire-Pot

The second section is the firepot, which has an ingeniously corrugated inner edge giving additional heating service and preventing the deadening of the coal at the edge of the fire.

The top sections, in which the water is heated, are a triumph in boiler construction.

The gases are carried up from the firepot in combustion through a series of round openings and overhanging arms in these top sections. They are carried upward until they reach a deflecting section which sends the flames down and back again to do more work.

All the Heat Utilized

When the burning gases finally reach the smoke box they find a new kind of check damper, which automatically prevents the escape of the heated gases into the smoke box until they have done their full work.

By actual test one small size boiler with this check-draft attachment will do as much work more economically than a larger size would without it.

The grate bars are of a superior triangle construction so arranged that part or all of the grate can be shaken as desired.

The firepot has the clinker door at the grate line so that clinkers may be readily reached with the slicing bar.

Self-Cleaning Surface

The firepot and a large proportion of the boiler above it is self-cleaning, while ample provision is made for cleaning other parts of the boiler by large clean-out doors without lowering the fire and interfering with the heating of the building.

"RICHMOND"
Boilers --- Radiators

Write for this Book

If you are interested in heating and building large or small, write us. Ask for catalog 323 Learn for yourself about this perfect system which is so economical of fuel that it saves its own cost and pays its own maintenance.

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"RICHMOND" Bath Tubs—Lavatories—Sinks

If you are about to build, investigate, too, the "RICHMOND" line of enameled ware. Everything in enameled ware, from kitchen sinks to bath tubs, which bears the name "RICHMOND" is the best that can be made, less expensive in the beginning and in the end.

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The water need not be drawn off from the apparatus during the summer months, and it is not necessary to renew the water in an apparatus oftener than once a year; the water should be drawn off and the apparatus refilled with fresh water just before starting the fire in the fall.

See that the boiler has a separate flue and a good draft and at the beginning of each season have the smoke pipe cleaned and put in good order.

Use coal of good quality. As a rule stove size coal will give better results than any other.

Have both supply and return valves on the radiators either wide open or tightly closed. If partially open the radiators will draw the water from the heater. If compression air valves are used open them when the radiators are filling with steam, to expel the air, and close them when the air is liberated.

To obtain best results, use good automatic air valves.

A little time devoted to understanding the working of this apparatus will amply repay for the trouble, and when once understood can be run with little trouble or attention.

Practical Points for Plumbing Systems.

I come now to some more specific advice, contained in the following maxims:

Each building should have a separate connection with the street sewer. Large buildings may require several connections, and these are better than one pipe of a very large size.

All the drain, soil, waste, and vent pipes within the building, and up to a point five feet outside, should be of heavy cast-iron pipe, with lead-caulked joints, or of galvanized screw jointed pipe with recessed drainage fittings. No earthenware or tile drains should be allowed within the building.

All pipe conduits for sewage should be constructed air and water tight, to prevent leakage of sewage and of sewer air.

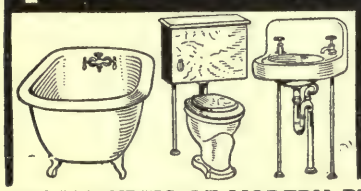
All the horizontal and vertical pipes should be carried as straight as possible. Offsets on vertical vent-lines should be made under 45 degrees.

On horizontal lines use Y branches, not tees, for junctions or connections.

All the pipe conduits, traps, cleanouts, as well as the fixtures, should be kept exposed and easily accessible for inspection or repairs.

All soil and vent pipes should be extended the full size to the roof, or even enlarged at the roof, to prevent closing of the pipes by hoar frost in cold climates. No pipe above the roof should be less than 4 inches.

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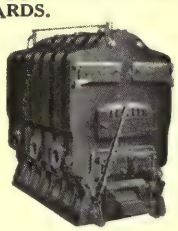
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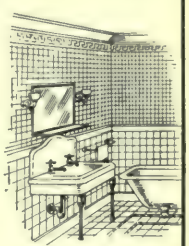
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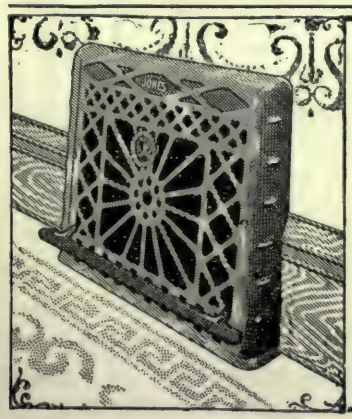


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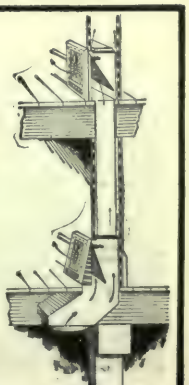
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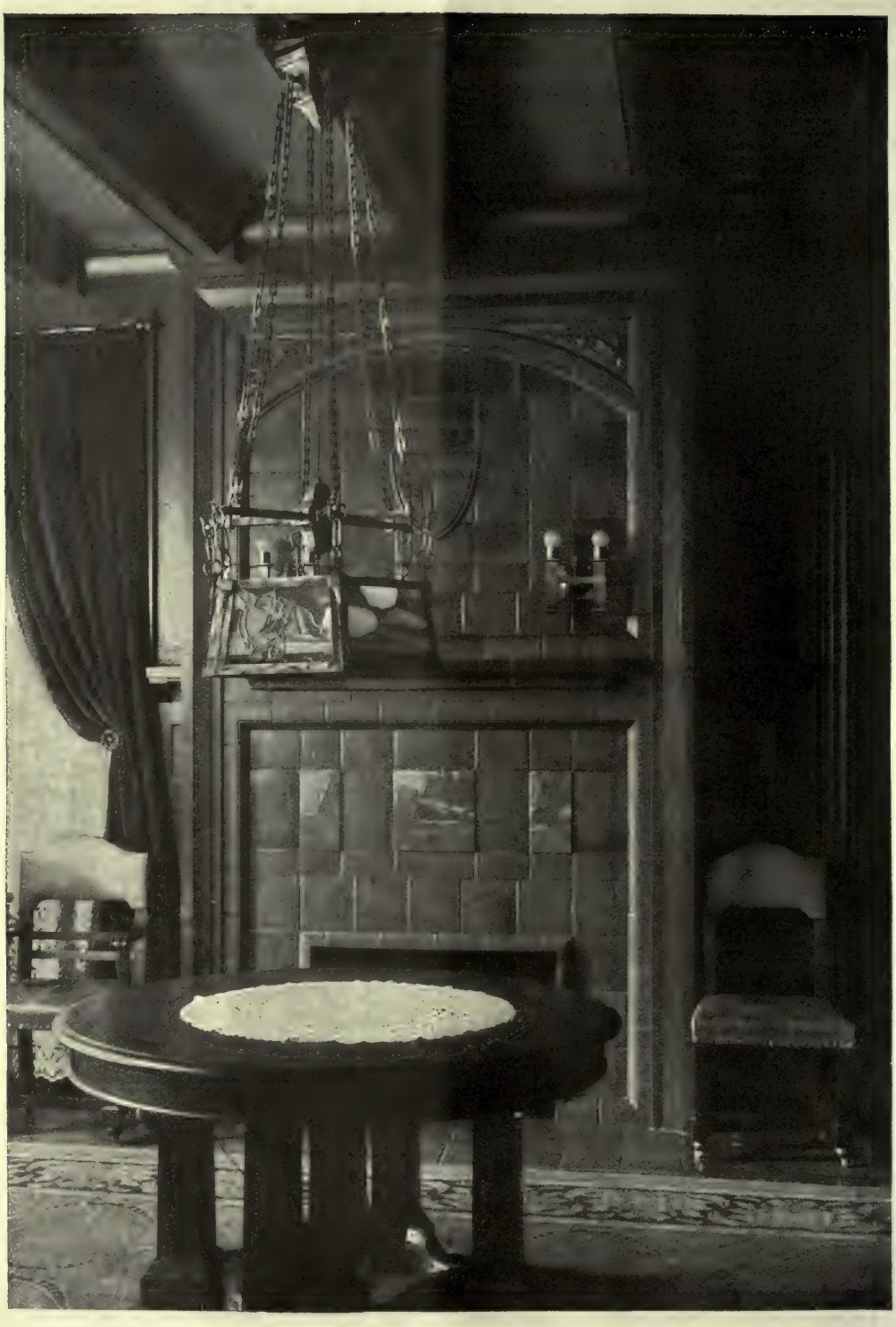
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FAIENCE MANTEL EXECUTED IN COLORED MAT GLAZES
—Courtesy of the Rockwood Pottery Co.

KEITH'S MAGAZINE

VOL. XXV MARCH, 1911 No. 3



A FAIENCE DESIGN FOR A LARGE HALL
—Courtesy of the Rockwood Pottery Co.

The Fireplace in the Home

Materials, Design and Practical Construction

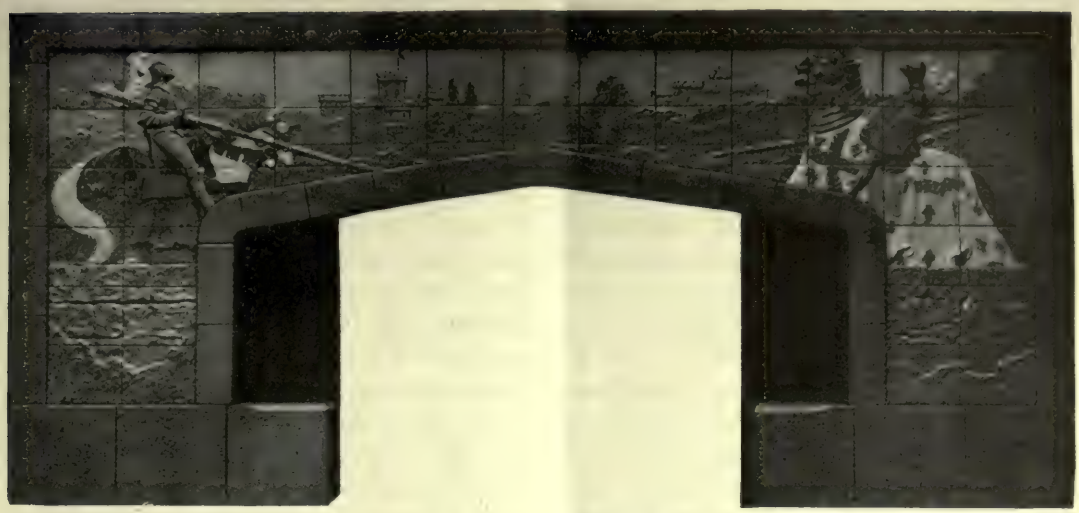
By EDWIN A. JACKSON

WHAT shall be the character of the fireplaces? Note in reference to their size and construction so much as to the structural and texture effects, whether to use wood or brick mantels, or to have them of tile or stone, marble or cement? What are the virtues and the disadvantages of the several materials?

In Colonial days, when fireplaces were depended on for the heating, and when a live bed of coals was kept from fall to spring, the mantels were almost exclusively of wood; faced with a narrow



FIREPLACE OF MAT GLAZE FAIENCE, WITH OAK OVER-MANTEL
—Courtesy of the Rockwood Pottery Co.



FIREPLACE DESIGN REPRESENTING A TILTING CONTEST
—Courtesy of the Rockwood Pottery Co.

row of brick between the actual fire opening and the woodwork. These mantels were frequently carved, but more often were decorated with composition ornaments, in which case they were painted white.

Throughout New England and the Southern Atlantic States can be found Colonial residences with these old mantels still in good condition, notwithstanding their use for a century or more. Which proves that wood mantels, when properly made, are entirely safe, and are decidedly durable.

A wood mantel in design and finish to match the general trim of the room, is rather more harmonious than is any other material. The woodwork ties in the chimney piece with the general design of the room; and while it may be made the principal feature of the room, if that is desired, there is not the discordant break one sometimes sees in a chimney not properly designed.

With the wood mantel will be used, of course, a facing of some non-combustible material; and this would better not be of metal, as the latter conducts the heat from the fire to the woodwork. Facings of ornamental iron, and of copper, are quite appropriate for use in marble mantels, but should not be employed with woodwork unless the latter is twelve inches or more from the fire opening.

Tile is the most popular, and the most apppropriate material for the facing. Preferably not the tiles in the high glaze in bright mottled shades, but rather in dull or eggshade finish in soft browns and greens; or in irridescent colors that vary with the reflection of the firelight. Care should be exercised that a color be chosen that will harmonize with almost any color scheme, for it is not probable that the wall surface will always be in the one shade originally selected.

The amount of tiling to form the facing should be not less than six inches around the fireplace; and this amount can be increased, in designing the chimney piece, until the entire material is of tiling. These tile mantels are particularly charming, having all the durability of brick or stone, but with a choice of colors not to be had in any other mineral product.

Marble mantels are again much in demand in the residences of the wealthy. But for the average house, marble is a

material that must be used with great caution. Stone, whether rough cut or polished, is subject to practically the same restrictions as marble, and this material is appropriate mainly in fireplaces of monumental character, such as in very large rooms or in public buildings. Boulders, field or cobblestones, are suitable only in bungalows, camps or houses finished in a rough or craftsman style.

Cement is the new product now so much in vogue for all uses. This material has the advantage of durability and of being easily moulded to almost any desired shape. It has the objection of being cold in shade and rather uninteresting when used in large surfaces. If the entire mantel is of this material, it will be well to have woodwork around the sides and across the front as a shelf; or else to bind the edges with metal and to ornament the face with metal brackets and hood. A few pieces of figured tile set in the face add much to the appearance.

Brick has been popular, but unfortunately to meet the demand for a variety of designs, manufacturers have originated a number of ornamental shapes. They have selected the shades to get uniform color until brick mantels have become deadly uninteresting. The very charm of brick work—as in tile work—is in the irregularity of shade and size. He who would have a really attractive brick mantel will use few moulded brick, and he will order rough stock that has not been sorted, but some of which are burned black at one end. "Tapestry brick" have delightfully varying shades, and also a rough surface made by "dragging" the brick in the mould.

In conclusion, the right material for the fireplace depends upon the character of the room, and the mantel should be studied, not as a separate feature, but as a part of the architectural and decorative scheme of the house. One may admire a mantel of a design or material that is well suited to one location, yet that same design might be quite discordant in another building. And the great virtue of the fireplace is to promote true harmony, not discord.



A FIREPLACE BUILT OF COBBLE-STONES

The Old Half-Timber Houses of Shrewsbury

Types That Influence Modern Architecture

By ADELAIDE CURTISS

THE ancient timber-and-plaster houses of England, which still stand in many of the smaller towns and cities, often closely adjoined by their vastly more prosaic neighbors, the modern dwellings,—these fine old houses give the beholder, especially if he is a wondering American traveler, decidedly a shock of surprise. Venerable and highly picturesque as these old structures are, often so astonishingly vivid in color, the dark beams of the woodwork, crossing and re-crossing in various odd patterns, being so in contrast with the light plaster and with the brilliant tints here and there upon the carvings, while the harmonious red-tiled roof crowns the whole,—all this is so unlooked for that these houses make up a picture wonderfully bizarre in its effect, while each old building seems like some strange tropical creature, some curiously exotic great bird or insect which has just arrived from some torrid region and has alighted only for a brief instant among more sober-colored companions. Chester, for instance, and Coventry are famous for these old houses as well as many other English towns, but in Shrewsbury, above all these wonderful buildings, so striking in color, so picturesque in outline, fairly pounce on the passerby as he turns a sharp corner or sees them just ahead down some winding old street. One of these Shrewsbury examples is especially conspicuous. Noteworthy, indeed, is this Gateway House, which leads into the charming old Council House, where once the stately Court of the Marches of Wales was periodically held. The large dull-colored and more modern buildings which closely surround and almost overshadow the fine old structure serve only to bring into sharper contrast the brilliancy of its tints and the irregularity of its outline, while the elaborate patterns of the wooden beams, the overhanging stories and the delightful little windows and gables make up a mediaeval composition that is absolutely perfect. The fact that the structure has become all awry through age only makes it more



COUNCIL HOUSE, SHREWSBURY

material that must be used with great caution. Stone, whether rough cut or polished, is subject to practically the same restrictions as marble, and this material is appropriate mainly in fireplaces of monumental character, such as in very large rooms or in public buildings. Boulders, field or cobblestones, are suitable only in bungalows, camps or houses finished in a rough or craftsman style.

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COUNCIL HOUSE, SHREWSBURY



IRELAND'S MANSIONS, SHREWSBURY

impressive, for the stout English oaken beams, of which the framework is made, bid fair to carry the weight laid upon them for a long period to come.

The English half-timber houses (as indeed of much of Europe as well) form an interesting chapter in architectural history. They are doubly interesting, too, from the then practical method in their construction. In a section where timber might be scarce, little could be used for house-building, so that plaster would be the material that predominated. Where, on the other hand, wood was plenty, it was freely used, and the structure took on an entirely different character. In Salisbury, for instance, the "Hall of John Halle," a charming fifteenth century building, has a highly ornate front, which, although so elaborately carved and so well worthy of study because of its beauty and architectural interest, is, however, far less effective than the Shrewsbury houses of about the same period. The famous Salisbury "Hall," built almost entirely of wood, presents far less of a contrast and, on the whole, no more pleasing a picture than the peculiar types of the Shrewsbury houses.

"Butcher Row," a quaint and narrow old thoroughfare of Shrewsbury, just off Pride Hill, is perhaps the best known quarter of this ancient city. It is believed that the line of old structures here once formed part of the town mansion of the Abbot of Lilleshall, or of the Chantry Priests of the Guild of Holy Cross. The boldly-projecting stories and charming little oriels and bow windows help to make up an ensemble that is most attractive. Such mediaeval houses, while impracticable perhaps in entirety, could furnish in their details many valuable suggestions to the modern architect. Another old section of the city is the Wyle Cop, where several quaint buildings cluster, among them one which bears the inscription:

"Ye ancient house, in which King Henry the VII. slept when he went to Bosworth Field, August, 1485."

On High street a very imposing line of old houses, several stories in height, constitutes Ireland's mansion, "an admirable specimen of black and white building." This was originally the town house of the wealthy Ireland family, and their coat of arms can still be seen upon the high-pitched gables. The stately and dignified structure, with its fascinating details and broken lines, is most interesting.

If typical houses are looked for, several can be found around the Market Square, one in particular being considered one of the oldest in Shrewsbury.

The old Shrewsbury school, founded by Edward VI. in 1551, and now a museum and library; Draper's Hall, belonging to the "Worshipful Company of Drapers"; and "Ye Olde House," on Dogpole—all these buildings, too, have many most interesting features. One should



WYLE COP, SHREWSBURY

not forget, either, the famous and still-existing Shrewsbury Cakeshop, and also "Bloudie Jacke of Shrewsberrie," of the Ingoldsby Legends:

"She has given him a roll and a bun,
And a Shrewsbury cake of Palin's own make,
Which she happened to take ere her run."

Of the churches, the massive pillars and arches of the abbey, the noble church of St. Mary, the remains of old St. Chad's, St. Giles', and St. Alkmund's, all have their story to tell of the past, while sections of the town walls and the restored castle have much still to represent Shrewsbury's part (and a most important part it has been) in England's history. Occupying an insecure position on the border between Wales and England, the town was taken and retaken again and again, while the Battle of Shrewsbury, fought in 1403 between Hotspur and the forces of Henry IV, was one of the most sanguinary of conflicts. Near here, too, once stood the ancient town of Wroxeter, the Uriconium of the Roman period, which suffered so terrible an overthrow by the hands of the West Saxons in the sixth century. The historian John Richard Green quotes from an early British poet, who, he says "sings piteously the death-song of Uriconium, 'the white town in the valley,' the town of white stone gleaming among the green woodlands. The torch of the foe had left it a heap of blackened ruins, where the singer wandered through halls he had known in happier days, the halls of its chief Kyndylan, 'without fire, without light, without song', their stillness broken only by the eagle's scream, the eagle who 'has swallowed fresh drink, heart's blood of Kyndylan the fair.' "

This venerable old town of Shrewsbury has indeed mournful memories of its own, but it keeps its prosperity up to the present day. Its splendidly striking old buildings could tell many a sad and strange tale, and these ancient structures seem to look with dismay upon their modern and often dingy neighbors which indeed elbow them much too closely. It is to be hoped that "Modern Progress" will spare these time-worn and historic memorials for many a long year to come.

Construction Details of the Home

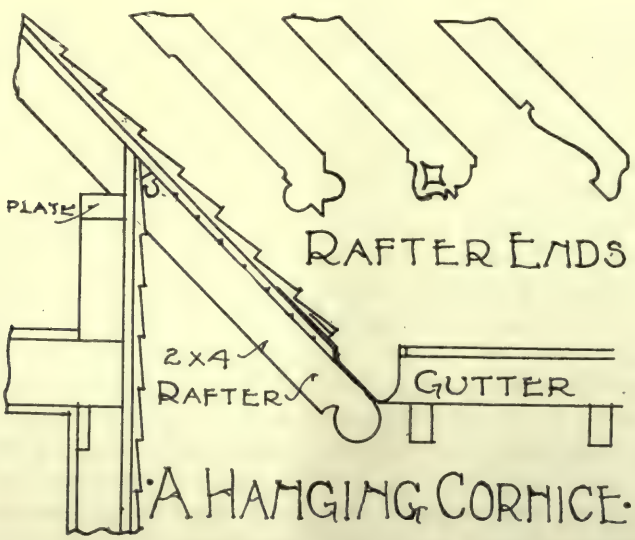
The Cornice, Gutter and Belt Courses—Details of Several Architectural Styles

By H. EDWARD WALKER

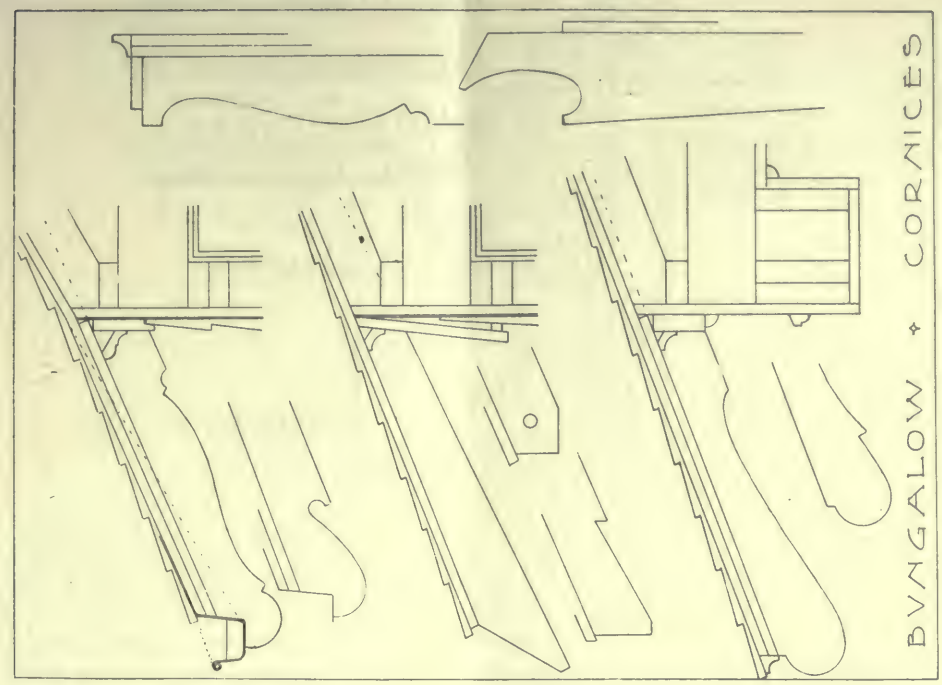
THE kind of cornice for any given house depends upon the architectural style employed. Some styles allow considerable liberty in details, while others such as the classic are very exacting, each moulding having a certain shape and definite proportion. The colonial architecture is properly classic in style, but has been modified in many details. The rafter construction of the hanging cornice shown in Fig. 4 is identical with that shown in Fig. 1 describing the frame. The rafter end is cut as suggested in the several outlines of the drawing and is securely spiked to the plate. V joint sheathing is nailed face downward upon the rafter ends and can be seen from below. The gutter is shown attached to the end of the rafter and is drained by a lining properly pitched to down spouts. This is not shown and is not necessary for short lengths of level gutter. The shingles should be nailed with short nails to avoid driving through the V joint sheathing. Often the rafter end is set low enough to allow two thicknesses, one of V joint or beaded sheathing and one of common roof boards.

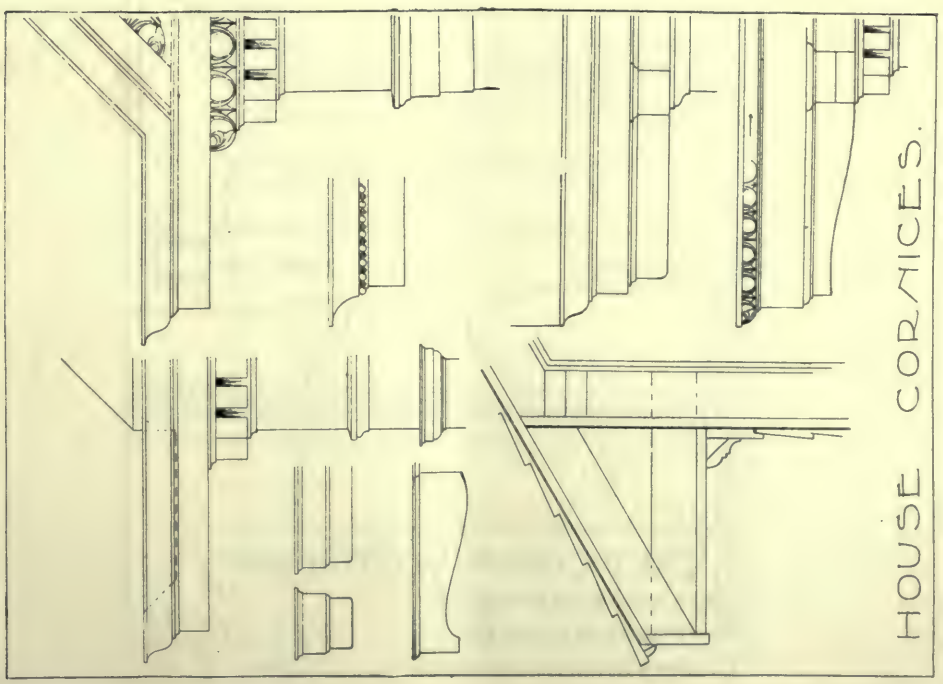
Several bungalow cornices are shown in projection from two to five feet, with and without gutters.

In Fig. 5 the rafter construction is similar to that shown in Fig. 2 of the frame description. The under side or soffit of the cornice as it is called, is produced by putting in "lookouts" to which the jointed sheathing is nailed. The crown mould and facia are constructed as

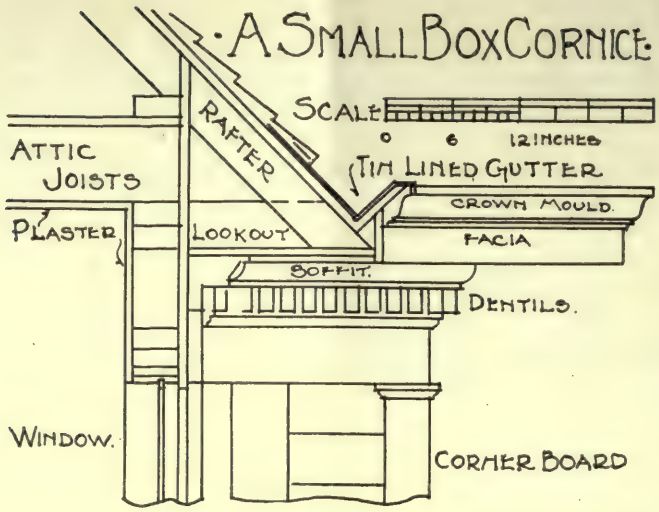


(Fig. 4)





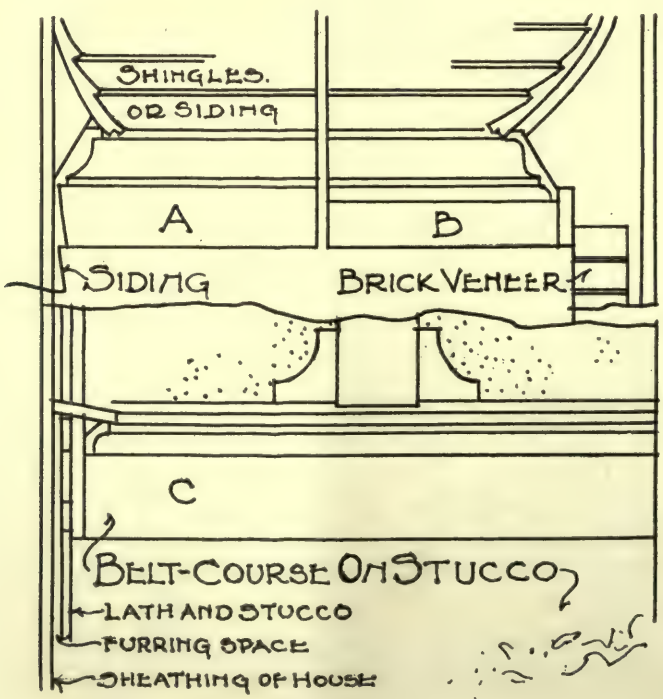
SOME ATTRACTIVE CORNICES FOR HOUSE OR BUNGALOW



(Fig. 5)

shown, forming a V shaped gutter lined with tin. A gutter of this shape allows the ice to collect without damage from lateral pressure. The mouldings in the angle between the soffit and the house wall are ornamental in their uses and are called the bed mould. This cornice is suitable for a small house on conventional lines, somewhat colonial in character.

Fig. 6 shows a box cornice with freeze and architrave of the colonial type suitable for a house of good size. The roof



is provided with an easement just before reaching the gutter, the rafter being raised up to change the direction of the roof line. The construction is very similar to that in Fig. 5, but provides a larger gutter. Note that no water can run over the face of the crown mould because the board at its top edge is pitched back toward the gutter.

The soffit is provided with jointed ceiling and brackets are shown in addition to the bed mould. The frieze, architrave and cap of the pilaster or corner board is shown. On a brick or masonry house the face would be the same as that indicated by the siding. The gutters should all be constructed to properly drain. Some details of simple house cornices are shown which will produce good effects.

Belt Courses.

Some designs have a moulded horizontal course dividing the wall surface, called a belt. Often the materials are of a different kind above and below it but not necessarily. The course A shows a simple treatment for a sided house with shingles or siding above. Course B shows a belt with brick veneer below and siding above. The belt C indicates a course for a house finished in stucco with plain wall surface below, half-timbered above. The stucco is applied to expanded metal lath as shown on the drawing with a furring space, or upon plaster board which is nailed directly to the sheathing of the wall over building paper. Stucco finish is very popular and adds to the appearance of the properly designed house.

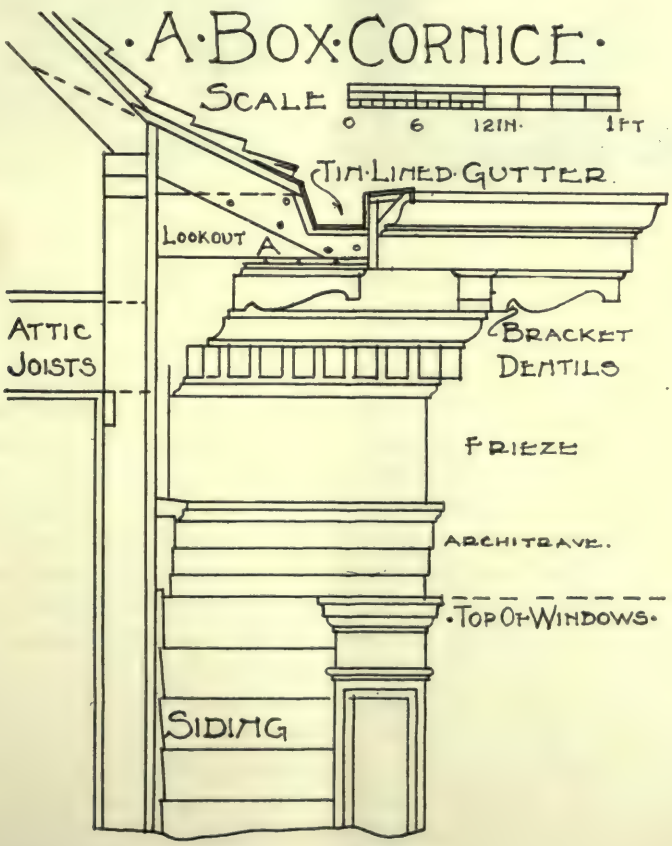


Fig. 6

Inexpensive Homes

Some Interesting California Types

By MRS. KATE RANDALL

(Photographs by the Author)



"EUCALYPTUS HOME," AN ALL-SHINGLE EXTERIOR

THERE has never been a time when one could build as comfortable and attractive homes as at present. There are so many different styles to choose from that the prospective builder is fairly swamped with ideas. For a small home the bungalow is very attractive and particularly comfortable for the woman who must do her own work, but where more sleeping room is needed and the servant question not to be considered, two-story houses have great advantages. They are comparatively cheaper and cooler, and many of us are like the little girl in a flat who cried to go to bed upstairs, we like the security of second story sleeping rooms. The houses illustrated are good examples of moderate priced homes and vary in price from $3,500 to $5,000. Probably this would be the average price throughout the West. They each have some new features in plans and finishing, but whatever other rooms there may be, the very large living room is almost universal and the porches generous in all of the new houses. The "Eucalyptus Home" has seven rooms and a large outside sleeping porch. It is shingled to the ground with cedar shingles, oiled but not stained. There is a gas furnace and water heater in the cellar and it cost about $3,500. Inside there are many comforts. On the first floor the woodwork is fir, stained to imitate chestnut, with a dull wax finish. The walls are rough plaster-tinted throughout the house. The living room is a dull sage green, unbroken from floor



A FOOTHILL HOME OF UNIQUE DESIGN

to ceiling. The den and dining room are leather brown. The whole side wall of the den is divided into panels by thin strips of wood, about 4 inches wide. These panels are again divided into squares, probably about 2 feet square. The frieze in all of the rooms is a band of the same thin wood, some 8 or 9 inches wide, and set quite close to the ceiling. The dining room is paneled like the den, but only to the height of a wainscoting—above this the wall is plain. A brown dining room is unusual but has proved very satisfactory, as almost any color scheme is admirable. White and yellow, or pink, being particularly beautiful. The rugs are Scotch dark brown, with narrow bands of black forming a border. The owner has carried her brown color scheme through all the fittings of the room. Dishes of brown and white, and deep cream curtains.

Both Scotch and Irish rugs are just now very much the vogue, and are very beautiful. Personally, I cling to the Orientals. The small buffet kitchen, a compromise between a kitchen and a butler's pantry, is a model of convenience. The woodwork is white, and cupboards line the walls on all sides, only room enough being left for gas range and sink. What little wall space showing is blue, and blue and white reign supreme in the room from floor to ceiling.

The stairway and second floor are white and as restful and peaceful as a cloister, with their soft tints and simple furniture in white enamel.

"Foot Hill home" has anchored itself to the hillside with its own great boulders, and the soft greens and browns of the autumn garden follow through the long French windows into the living room. The wood is entirely white throughout the house, many of the rooms with high wainscoting. The hall is finished in the shades of autumn leaves, and the dining room, above the high wainscoting, is daffodil color, cream curtains with side curtains of brown, and here also an Irish rug.

The white tiled kitchen follows the buffet idea and is filled with the most fascinating pots and pans in all shades of brown and cream.

The "Third House" is more subdued in effect, and more heavily beamed. The connecting rooms are very harmonious-



THE THIRD HOUSE IS MORE SUBDUED IN EFFECT

ly treated. The living room with its high wainscoting is stained very dark, and the walls covered with a fabric, changeable in effect, greenish as one looks across it into the green hall, and bluish as you look into the Dutch blue dining room. Oriental draperies complete the furnishing.

Nine out of ten fireplaces one sees are of hard red brick—but in this library the fireplace is an innovation—very high and of art tiles, dull red and green, set alternating and on the bias. The hearth is the same, and wide. The bathroom, too, differs from the others. Has a cement floor lined off into tile pattern, and the enamel tub is sunk, for half its depth, into the floor. A convenience for elderly people. The drain boards of the sink are wood stone, said to be hygienic and not to stain. All of the houses have artistic settings well worth our attention, trees, shrubs and vines covering the wide porches.



FLOWER BORDERED STEPS LEAD UP TO THE HOUSE

Pillow Coverings

Decorative Treatment Applied in Leisure Moments

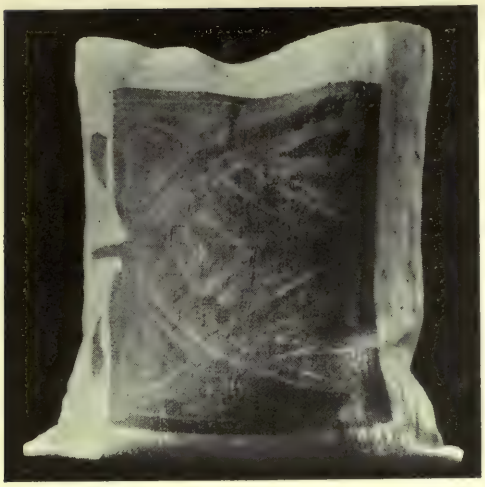
By MARGARET ANN LAWRENCE

A GENEROUS supply of cushions is always needed for the outdoor and indoor life. There is always a place for an extra one on divan, couch or cozy corner. If in doubt what to give a friend for a gift, make a pillow. Especially will the college boy or girl hail with delight a handsome, serviceable addition to their collection. For the winter home or the summer cottage there is nothing that adds to and suggests more comfort than pillows. For outdoor life let them be simple. Do not edge them with fancy ruffles, ribbons and cord, excepting perhaps for a single loop which is useful when carrying the pillow about. They should be of serviceable material, which will bear being left out over night without serious damage. Denim, duck, heavy linen and friars cloth are among the most serviceable of the foundation materials and covers of these will also be good for a season of service in the living room after the chilly days have come. These may be stamped for outlining with braid, heavy linen cord, narrow colored tape or washable rope silk, or treated with a stencil. Simplest of all, yet capable of being made exceedingly pretty is the pillow of denim or monks cloth with applique of cretonne. The latter material may be put on as a border, set well in from the edge, or may form a wide band through the center; or large flowers, poppies, roses or chrysanthemums may be cut out of the cretonne and applied in groups and scattered blossoms. Washable rope silk is used, outlining the edges which are first machine stitched to the foundation. If it be desired to give a somewhat more elaborate effect, stems and leaves may be darned in with silk. Turkish embroidery is cleverly simulated by a combination of applique, darning and couching. Arrange a group of squares in over-lapped effect on a foundation of sage green denim, and outline these in rope silk. One square in each group has for a center a bit of Persian figured silk and these are sewed in place. Double borders are made to each square by couching with Japanese gold cord. This cord does not tarnish with dampness and does not fray when cut. After the cord is sewed in place, a large eyed needle is threaded with several strands of embroidery floss. With this darn back and forth until the space between the two lines of the border is filled. Use different shades of the floss and a large eyed needle, otherwise the floss will draw out too slender.

This style of work can be developed



EMBROIDERED PILLOW COVER



STENCILLED PILLOW COVER

in several ways. The centers of the squares may be tinted different colors with oil paints thinned with turpentine and put on with a flat bristle brush. Or the borders may be tinted and the square centers have small designs embroidered in them.

Bold stencil effects may be obtained by cutting pieces of cardboard to form a conventional pattern when they are repeated, then laying these on the material and marking around them with chalk or lead pencil. English crash has an attractive rough surface and takes color well. A pillow having a crash center is framed and backed by Carmelite brown burlap. The burlap is cut large enough to make the back and then turned to the front and makes a two inch frame around the crash center. Instead of being stitched along the extreme edge on the inside then turned as is the usual mode of making pillows, this one is stitched around where the burlap joins the crash so that when the pillow is covered there is a stiff band all about it, in craftsman or mission effect. The center is decorated with oil colors in yellow, dull red, and a dull peacock blue.

Self colored canvas, such as tailors use for interlining, lends itself excellently to cross stitch embroidery, and the simplest pattern laid out with ruler and pencil in parallel lines, then worked in two shades of rope silk looks quaintly old time. The threads of the canvas give the dimensions for the stitches.

The dragon design pillow has a background of light green art cloth. The body is outlined with black rope silk, while the ends of wings, claws and tail are in satin stitch and done with a silver green filo floss. In the body a fillet net stitch is used which gives a rounded scale effect; a shaded floss running from cream to medium green being used. The tongue in satin stitch and the nostrils are worked in a brilliant scarlet, which gives the desired touch of color needed.

The material used in the stenciled pillow is natural colored burlap. The background is a soft orange while the design is worked out in dull blue, soft olive green and brown. Oil colors are easiest for the average worker to use. If applied thin and carefully they are washable. Experiment with each color on a small piece of the cloth until the desired tone is found. Regular stencil brushes are round and short and come in different sizes. They hold a good deal of paint and by their use the color can be applied more evenly over broad surfaces than when a small bristle brush is employed. In applying the color a separate brush must be used for each color. As a medium, either the regular stenciling fluid is used or if this is not to be had, turpentine can be substituted, using only the best quality, as there is a disagreeable odor to the unrefined quality. Squeeze the colors out on a piece of blotting paper and let stand for several hours. This absorbs more or less of the oil and makes the color less liable to run. With a palette knife mix the colors desired with enough medium to make a thin mixture. If not used to color mixing, it is wise to prepare enough for the whole design as



A PILLOW COVER OF MODELED LEATHER

by this means there will be no chance for a variation in tone in a second or third mixing. The material should be placed flat upon a smooth board with a piece of blotting paper beneath. The stencil is carefully pinned in its proper place. Dip the brush into the paint, have a pad of several thicknesses of soft cloth upon which to wipe off any extra color if the brush seems charged with too much paint. The brush may be wiped almost dry and it will still be found to have enough color. Taking this precaution, there is much less danger of having blurred edges. Put on the paint in vertical daubs, holding the brush firmly and well down toward the bristles. Steady the stencil with the left hand and work the color out of the brush into the fabric by rubbing the brush back and forth in the spaces of the stencil. The stencil should be well secured at the edges with pins to prevent it lifting from the material. If when lifting the stencil there is any color clinging to its edges, wipe it off before replacing it.

The pillow of modeled leather has the peacock feather motif for decoration. The material is Russian calf, of the best grade in the natural color. Two leather tools are required, those known as double enders, each one has a tool at either end, one of the four being a sharp three-cornered outliner. The others are different shapes; more blunt and broader and of various sizes. They are used to burnish or flatten the background. A smooth board, a pencil and a sponge are all that are required. The design decided upon, a careful tracing is to be made on tracing paper. The leather is dampened on both sides, care being taken to cover the entire surface, as if any dry spots are left ugly marks that will always remain are the result.

Place the design upon the leather and

fasten it to the board with thumb tacks. With a medium hard pencil go over the design lifting the paper at different points to be sure the entire design has been transferred. Remove the paper, and with the sharp pointed tool trace the design. As the leather drys wet it again. Do not saturate it but keep it at all times sufficiently moist to work on easily. Experience will soon teach the worker just how much is needed. If too wet it becomes spongy, if too dry, the lines will not be clear and deep. Hold the tool as you would a pencil with the beveled point lying upon the leather. Go over the outlines trying to keep all lines as even in depth and width as possible. Then with the small burnishers press down the background wherever it is needed to bring the design into relief. In turning curves there is a tendency to carry the lines over into the margin. To avoid this do not draw the lines quite to the corners and finish them afterwards in this manner: Hold the sharp pointed tool in a more horizontal position, pressing the point down with the first two fingers of the left hand and push the tool forward. The underside of the tool will take a straight course following the line to where the curve is to be. At this point turn it up sharply, assuring a well defined corner.

It is of course difficult to explain these details in words, but a little practice upon scraps of leather will be of great help. If the leather wrinkles you may know you are pressing against the fibres and it will be necessary to change the direction of the tool and work in the opposite direction. Should the leather become too wet at any time stop work until it has become partially dry again.

Under the proper conditions of dampness the parts of leather pressed down will be darker than the original skin color.

The pillow may be left the natural color or with dyes can be stained any desired tone. It is very effective carried out in peacock colors. The background is a mottled green brown; the squares a deeper brown, and the eyes a soft dull purple and blue green. The feathers the same dull purple with orange showing in the spaces of background. The back is left undecorated, or with a simple border of lines. Holes may be punched along the outside edge a half inch apart and the two sides laced together with narrow leather thongs over and over, or it can be taken to a shoemaker or saddler and large eyelets put in several inches apart and in from the edge at least three inches, then laced together in and out with the narrow strip of leather. These are tied together at the corners with a fancy knot.



AN ATTRACTIVE SEAT WITH PILLOWS

Designs for the Home-Builder

SPRING work has begun in earnest and the designs for this issue will be of special interest to those who desire an artistic home at moderate cost that can be built and occupied before the summer is well advanced. The bungalow, the cottage and the more symmetrical house, are all represented. Of materials, shingles, siding and cement construction are shown, giving an opportunity to gratify individual taste. As the season progresses occasional houses of the more expensive type will appear for the benefit of the larger home-builder.

Design B 223

The central dormer gives character to this house with its diamond cut windows and quaint details. The walls are sided and the roof covered with asbestos shingles. This is a refreshing departure from the usual wood shingle, it makes a good appearance, is fire proof and will last indefinitely. This is a compact and pleasing little plan with well arranged rooms all of good size. On the second floor are three chambers, a good bathroom and a sewing room which open to a large rear balcony. The attic is of good size with stair from sewing room. First story finished in birch including stair to second floor. Second story finished in white enamel. Hot water heat. A convenient laundry is located in the basement. The size, including rear porch and den, is 30 ft. by 36 ft. 6 in. The estimated cost built of good average materials is $4,000.

Design B 224

This little bungalow of the California type is of frame construction with wide siding and shingle roof. The living room, dining room and pantry occupy one side of the house, with two bedrooms and a bathroom upon a private hall, on the other. A wide opening could be made between living room and chamber if desired. Oak finish is used in living and dining room; birch in kitchen and white enamel in bedrooms and bath. Attic affords ventilation only. Basement contains hot water plant, fuel bin and laundry. Size 22 ft. by 42 ft. The architect estimates the cost at $2,500.

Design B 225

This house of siding and cement stucco is upon very plain but at the same time very good lines. Its broad presentation towards the street emphasizes its width and gives an impression of greater size. The plan is very good, the living and dining room being of good size and carefully studied as to view points. There is a fireplace, a sideboard, combination stairs from hall and kitchen and a well appointed pantry.

There are four chambers, linen closet, bathroom and a rear balcony on the second floor and a good attic above. The first story finish and floors is of oak except kitchen part which is natural pine finish and maple floor. Second story floors are of birch. The finish is of birch except bathroom which is white enamel. The basement contains laundry and hot water heating plant. Size 30 ft. by 26 ft. without projections. The cost is estimated at $3,800.

Design B 226

The ground size of this house is 30 feet wide by 36 feet deep, exclusive of piazza, and the estimated cost as de-

scribed with good basement is $3,500, exclusive of heating and plumbing.

There is a large living room 14x26 feet, a good-sized reception hall, a dining room 11x14 feet, a kitchen 10x14 feet and an ample pantry with rear entryway. The second story has three large and one small chamber, each provided with ample clothes closets. There is a large linen closet and bathroom. The broad liberal piazza across the front makes a cool and shady retreat for summer.

This design has clapboard for the first story and the gables in shingle or rough cast cement. A very pretty interior finish for this house would be Washington fir in mission style, stained with a dark flemish stain. The same style will look well throughout, or the second story can be finished in white enamel if preferred.

Design B 227

This is an all cement exterior upon expanded metal lath. The large living room with its generous fireplace at one end is the principal feature of the plan. Dining room, pantry and kitchen are located at the left of the central hall and a study at the rear. A short stair from the kitchen meets the main stair landing. By locating the maid's room in the large attic, four very fine chambers would be of service on the second. First story finish oak, except kitchen portion which is of birch. Second story finished in white enamel with birch floors. The porch is located at the rear for privacy and above it is a large deck reached from the family chamber. The basement is supplied with a good laundry, vegetable cellar and hot water heating plant. Exclusive of projections the size is 35 ft. 10 in. by 28 ft. The estimate based upon local prices is $4,600.

Design B 228

The illustration shows a perfectly rectangular bungalow among semi-tropical vegetation showing what can be done when proper planting is made about the home. This bungalow contains living room, dining room, two chambers, bathroom, kitchen and pantry. There is a fireplace with brick facing in the living room and from the vestibule is an ample coat closet. Under the rear portion is a 7-foot basement containing furnace. The finish is of Georgia pine with Georgia pine floors throughout. The arrangement is compact and the wardrobes are so arranged that the bathroom is isolated, shutting off all noise. This should prove a very pleasing little home.

The size is 28 feet by 60 feet and the first story is 9 feet in height. There is no attic except for ventilation. With heating and plumbing, it is estimated to cost $3,700.

Design B 229

This little cement cottage fits a special location, beautifully wooded, which made a porch desirable upon the rear rather than in front. Only a small entrance porch is provided at the front door. The hall gives access to all the rooms which are of good size and well arranged. Oak and birch are used to finish the first story with white enamel for the second story. The chambers are well supplied with closets and besides the bathroom there is a good sewing room overlooking the street. The basement contains vegetable cellar, laundry and hot water plant. The size is 40 ft. wide by 26 ft. deep. The cost built of excellent materials was $4,500. This could be considerably reduced by the omission of some of the more expensive details.

Design B 230

This pretty cottage design has proven to be very popular. It contains modern conveniences, such as are usually found only in larger houses. The refrigerator

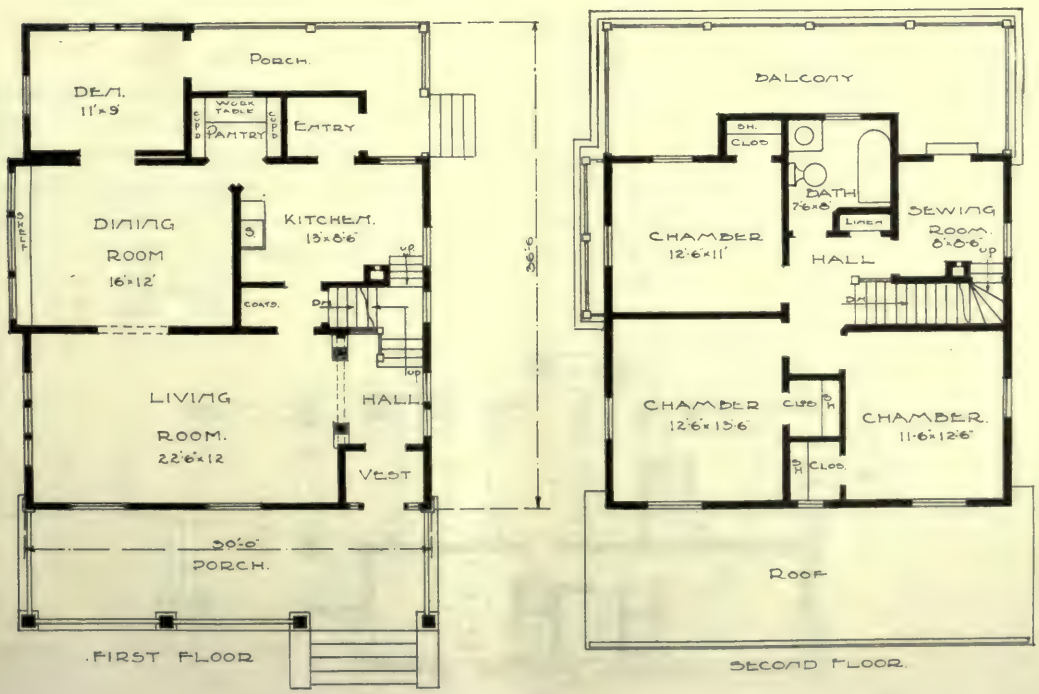
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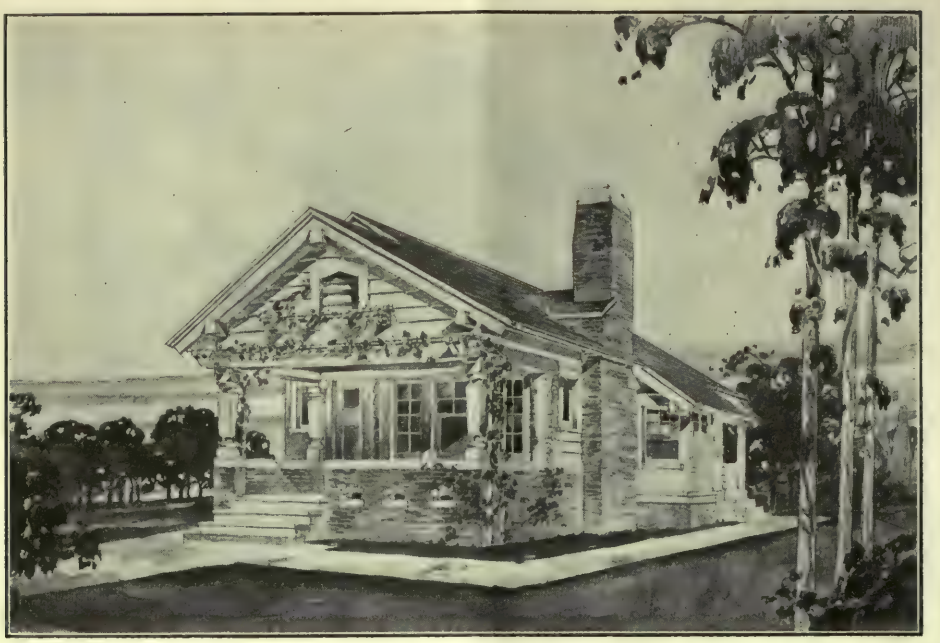


Misener & Stockham, Architects

A Pleasing House With Asbestos Roof

DESIGN B 223





John Henry Newson, Architect

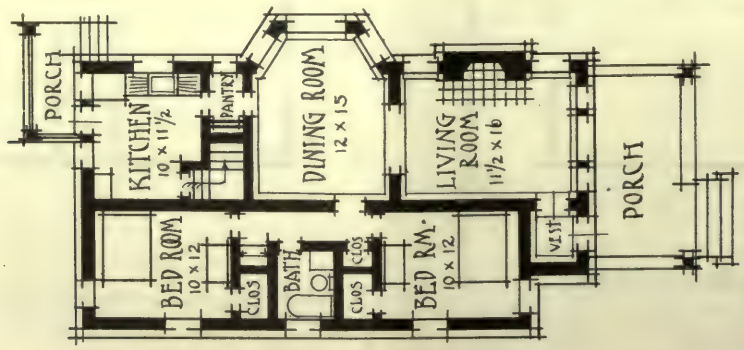
A California Bungalow

DESIGN B 224

is intended to be built in and iced from the entry, but there is ample space for a portable refrigerator to stand in entry, if desired.

There is a basement under the entire house with cement floor, hot air heating apparatus, also coal bins, laundry, cistern, etc. The space in the attic does not amount to much and is reached by a scuttle in second story hall.

Width, 28 feet; depth, including rear entry, 35 feet; height of basement, 7 feet, 6 inches; first story, 9 feet, 5 inches; second story, 8 feet, 3 inches; lowest height in second story rooms, in corners, 5 feet, 6 inches. Estimated cost, $3,200.

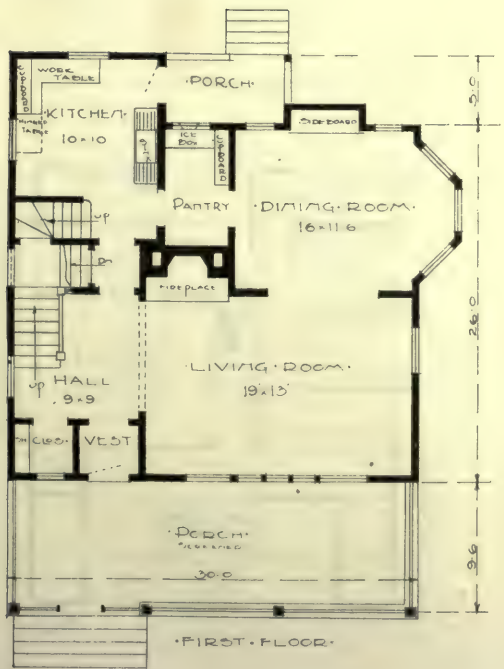


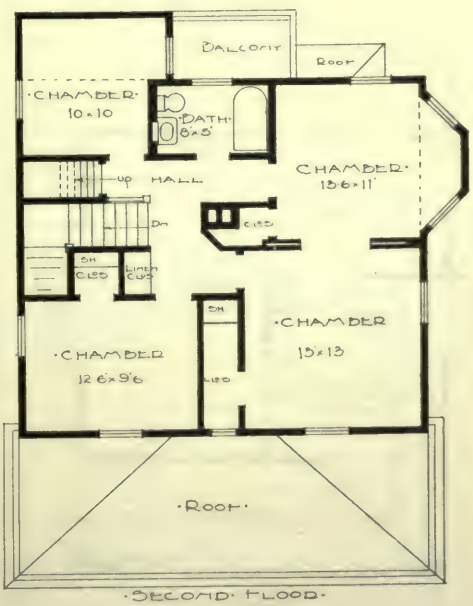


Downs & Eads, Architects

A Square Half-Timber House

DESIGN B 225



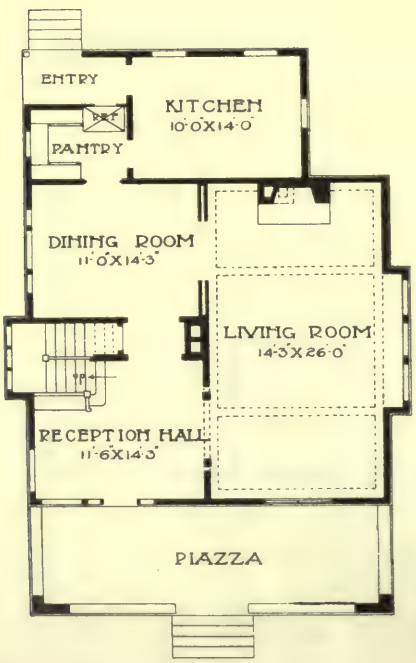


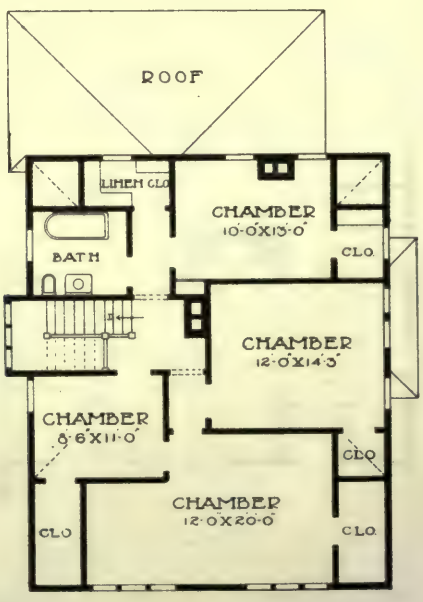


Chas. S. Sedgwick, Architect

An Unique Porch Treatment

DESIGN B 226



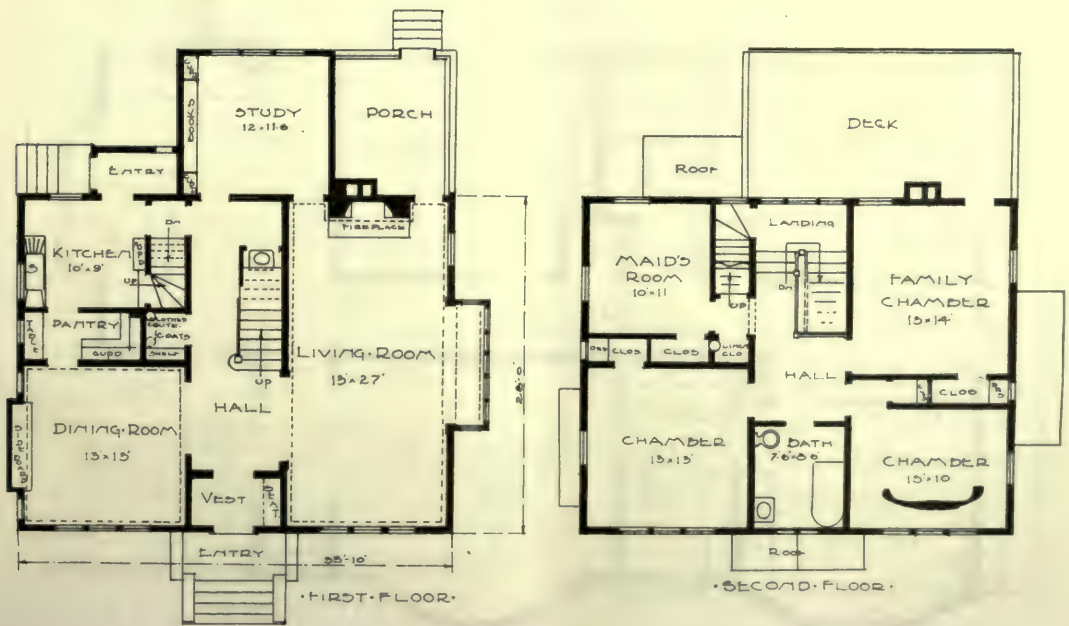




Fremont D. Orff, Architect
H. Edw. Walker, Associate

An All Cement Exterior

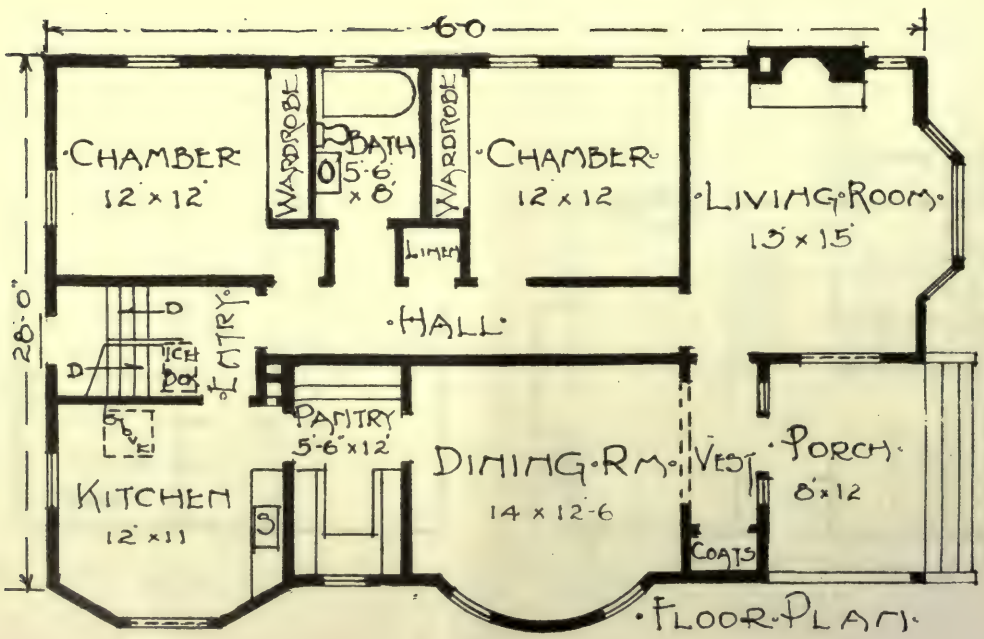
DESIGN B 227





A Bungalow Amid Flowers

DESIGN B 228

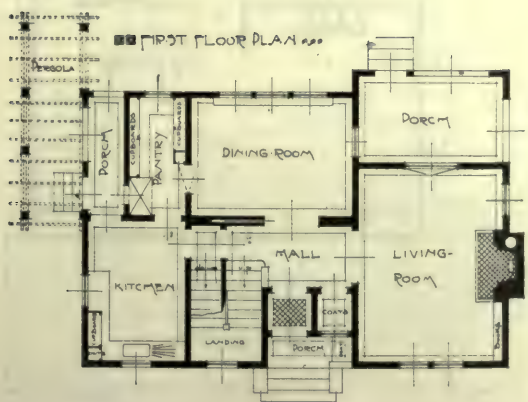


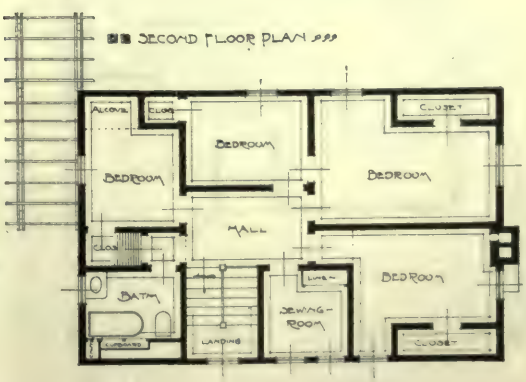


A. R. Van Dyck, Architect

A Quaint Cottage Home

DESIGN B 229

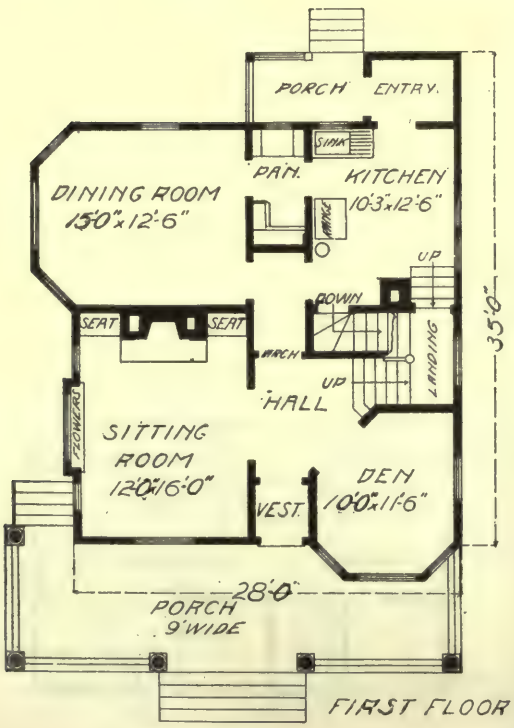


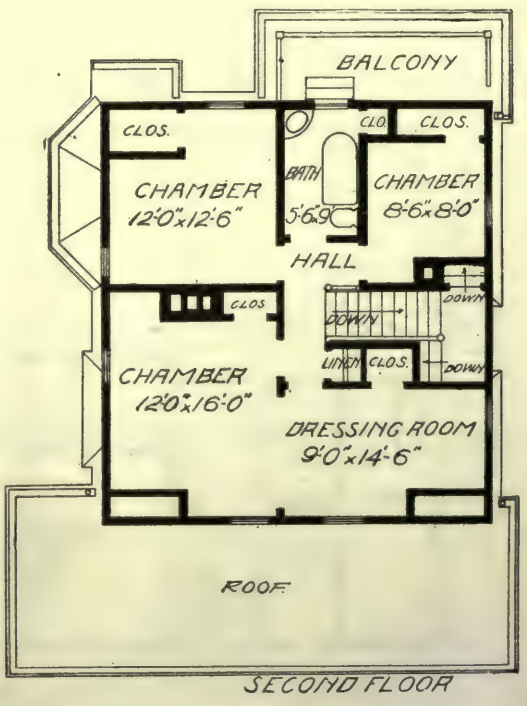




A Suburban Home

DESIGN B 230





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Conducted by ELEANOR ALLISON CUMMINS, Decorator, Brooklyn, N. Y.

Cool Treatments.

THOSE of us who answer questions as to matters of decoration often run across the idea that a cool scheme of color is necessarily objectionable, despite the fact that this puts some of the most interesting and refined colors out of commission. The fact is that the whole thing is a matter of exposure, with the use of the room as a side issue.

Take blue, in its gray tones, from which a scheme of great beauty and refinement can be developed. Admit that it is not agreeable in a room with a north light. Not all rooms have a north light and the same scheme will be delightful in a room with a south-eastern or southern exposure, or even in a west room, which gets suffused sunshine before direct rays reach it. And if the north room is one used only in the morning, like a breakfast room, it will get enough of the sun in the early morning to redeem its coldness. The same thing is true of the cooler greens, and of gray, although the latter is seldom used without modifications of warmer color. Moreover the cool schemes of color are often charming by artificial light.

Old Blue and Pewter.

One of the problems of the collector is furnishing up to his collection. It is not always easy to find the best setting for curios. In the case of paintings a neutral ground seems to be the best thing. The old feeling for crimson has passed. A warm gray is a good background for oils, a cool green for watercolors. There are exceptions in the case of pictures with a dominant color tone. "The Lady in Scarlet" does not compare successfully with an old rose wall. Pictures in black and white, etchings and prints, thrive against a background of the lighter browns.

But other things, porcelains, silver and pewter look best in combination with positive color. Pewter is at its best with dull blue, not too dark, and gray in tone. The gray of the wall seems to supplement the gray tones of the pewter. And as the natural place for pewter is in the dining room, it may well be supported by blue china. A very good arrangement for a collection of pewter is an old blue wall of medium tone carried to the plate rail, either a plain color, or a two-toned effect. Above this the side wall and ceiling are tinted a very light gray, putty color rather than a blue tone. With blue china, Canton or Nankin, on the plate rail, fumed oak furniture, the pewter displayed on sideboard and shelves, and an Oriental rug with strong reds and blues, you have a scheme of much refinement, and one which is unchanged by artificial light.

Redeeming Cold Color.

In a scheme like the one just suggested, it is possible to relieve the sombre effect by the judicious use of brilliant color. vivid scarlet, orange or deep yellow are alike effective with these cool blues and grays. Greenery is never out of place, but scarlet geraniums or the red and orange nasturtiums, in fact almost any pure red flowers, are charming with bluish gray. The purplish reds, on the other hand, are worse than out of place, but there are some shades of yellowish pink which make an agreeable contrast.

When it comes to permanent—shall we say alleviations?—scarlet candle shades, or a vivid red Geisha lamp shade will answer. One of the latest outputs of the Doulton works is a flame red pottery, of wonderful quality and texture, and of so intense a radiance that a small jar or bowl would go a long way to "make sunshine in a shady place."



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Interior Decoration

This is a small reproduction from the color design of the interior of one bedroom in the Sherwin-Williams Cottage Bungalow Portfolio, which is sent free and which will help you to decorate your house.



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The Return of Old Rose.

While on the subject of color, it is pleasant to note that green is longer having it all its own way. That green is beautiful and admirable no one denies, but it is not the universal and only decorative panacea, and we should welcome a variety. Old rose in very soft, not too light tones, is making its appearance with gratifying frequency in the fabrics of the better class. Most people will admit that it is not a specially good wall color, but it is certainly exquisite in fabrics with a pile, or in brocaded materials. Decorators combine it with dark oak furniture, using a pinkish brown for the walls. The pinker shades are used for bedroom walls in combination with birdseye maple furniture, with the relief of much flowered cretonne. Old rose, like lavender, is a patrician color, needing a good setting to show its best points. Delightful in silk or broadcloth, it is common in cotton or serge. In cheap materials, it is better to use the frankly pink shades.

The darker tones of old rose are very good with mahogany furniture. One of the long sofas which, in a decent unholstery of black haircloth, were once essential to all well ordered houses, whether it be an Empire or nondescript, is most effective when covered either with a mohair damask in dark rose, or in a self-toned Liberty or Morris velvet. The rose tones in these latter are very beautiful, with the delicate bloom of the mallow pink.

The Wearing Qualities of Cretonne.

There is an impression abroad that it does not pay to use cretonne, that it costs a good deal, soils easily, and does not wash. This is undoubtedly true of the ordinary American cretonne costing from eighteen to thirty cents a yard, also of the domestic taffetas. What are called art tickings, a sort of printed jean, are really reliable in color, and some of those which copy old crewel embroideries are very beautiful.

The most profitable investment in the way of washable coverings is the reversible English cretonne. The fabric is strong, the designs are generally good, the coloring soft and harmonious, and it will stand a great deal of washing. Let us qualify. No cretonne, or any other printed fabric, will stand hard rubbing on a board with yellow soap. Cottons will stand it better than figured linens, because the cotton is more penetrated by the dye than the less porous fibre of the linen, but only the mildest of soap, Ivory or white castile, gentle rubbing between the hands and drying in a shady place will insure the continued beauty of either. With these precautions, and with good judgment in selecting the cretonne, choosing one with a plain surface and a well covered ground, coverings ought to last a number of years in good condition.

Verdure Cretonnes.

Among recent importations, are English cretonnes copying the verdure effects of French cotton tapestries. Openings here and there in the clustered foliage of the design give the suggestion of a landscape vista. There are three colorings, one in which the foliage has an olive tone, another in bluish greens, a third in which russet tones are introduced. These cretonnes are not light enough to soil easily, and are admirably adapted for use with the popular green wicker furniture, and would be equally good with that stained brown. It is always a mistake to use a light colored cretonne with wicker furniture in a living room, as the loose cushions get mussed and soiled and make the whole thing look shabby.

Other cretonnes for use in bedrooms show a tendency to copy, or at least suggest, old crewel embroideries. The suggested ones are generally more pleasing than the copies, and some of them are very beautiful. Some of the most effective ones have the white or cream colored ground covered with tiny black dots, a device which tones down the brilliant colors of the pattern and harmonizes them with the ground.

Cotton Crepes, Their Merits and Demerits.

There are two sorts, the Japanese and the domestic crepes in white or old blue; the latter are excellent for curtains in a country house. It may be questioned whether they are any more satisfactory than cheesecloth at half the price, and both of them depend very much upon the neatness of their finish and the care with which they are hung. In the printed domestic crepes there are a few fairly good ones in white and blue, but most of them are bad copies of the Japanese, and fade badly.

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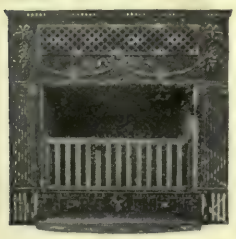
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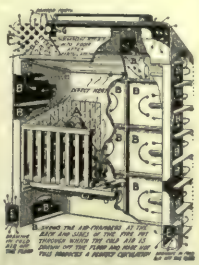
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Some of the Japanese crepes are most artistic. The greens are apt to be rather vivid, but the blues are charming, whether they have a sketchy design in dark blue on a clear white ground, or a stencilling of white on a blue ground. The time was when it was almost impossible to find Japanese textiles which were not artistic, but now, since the workers have been affected by Western influences, it is by no means a matter of course. The distinctly Japanese designs, the bamboo, chrysanthemum and cherry blossom, as well as those which introduce birds, are always good. Others are as ugly as the ugliest output of a Western cotton mill.

One use to which the Japanese crepes are put is for wall coverings. They are not precisely cheap at thirty-five cents a yard, but the amount involved in an upper third treatment is not large, especially in a room with broken wall spaces. They are specially effective above a high wainscot. There are shadowy gray ones which would be charming above a panelling of gray maple, or a weathered green, with Japanese prints hung here and there against the wood. Another, to be used in a blue room, has a ground of soft light blue with tiny white dots scattered over it, the design a flight of swallows silhouetted in black.

Where a touch of strong color is wanted, the need may be met by a cushion covered with a vivid orange crepe with a pattern in white. This bit of brilliant color is the salvation of many a blue room which fails to please.

As to wearing qualities, these crepes are excedingly strong, but the washing is seldom guaranteed, although the plain blues and greens and the blues and whites are reasonably fast, particularly in the gray tones. There is a finer quality, made specially for one New York house, which far surpasses the ordinary crepe in every way, and is amply worth the added cost.



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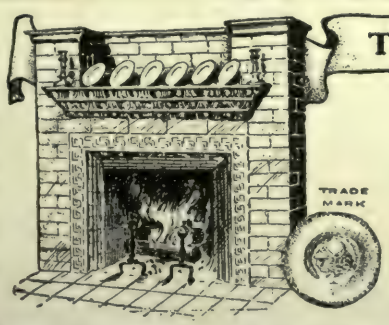
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Architects:—Descriptive details of Morgan Doors may be found in Sweet's Index, pages 794 and 795.

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ANSWERS TO QUESTIONS
ON INTERIOR DECORATION

Editor's Note.—The courtesies of our Correspondence Department are extended to all readers of *Keith's Magazine*. Inquiries pertaining to the decoration and furnishing of the home will be given the attention of an expert.

Letters intended for answer in this column should be addressed to Decoration and Furnishing Department, and be accompanied by a diagram of floor plan. Letters enclosing return postage will be answered by mail. Such replies as are of general interest will be published in these columns.

H. G. R.—The reception hall of our new house is small, separated from the living-room by columns. Should this be finished like the living-room, which is furnished in brown Flemish, with dull brown woodwork? We had thought of buff tinting for our sandfinished side walls, but would like something brighter. For instance, would it be possible to have the ceiling tinted scarlet, between the beams, with an appropriate side wall?

Our dining-room is also separated from the living-room by columns, but here we have curtains which may be drawn. This room has a northern exposure and we had thought of yellow and some blue, as we have blue china, with white woodwork. We wish to use mahogany furniture, but we thought that it might be better taste to furnish the two rooms in the same style, which would change the color scheme and finish of the dining-room.

Will you suggest a mantel for the living room, also some attractive way of lighting these rooms by electricity.

H. G. R.—Ans. With your brown woodwork in hall and living-room would suggest using a buff tint for the reception hall. As the ceiling should always be lighter than the side walls, scarlet between the beams would be out of place. You might use the apricot shades, a medium tone for the side walls, lighter between the beams of the living room. A warm old rose is very good with Flemish, but might not harmonize with the dining-room if it is very plainly visible from the living-room. A third possibility would be terra cotta, a red rather than brown tone, with considerable yellow in it, using a very much lighter tone between the beams. But whatever the coloring the finish of the two rooms should be alike.

Use white woodwork in the dining-room, and by all means have mahogany furniture. In place of the yellow and blue scheme would suggest a burnt orange wall. If the wall is to be painted would have it stippled so as to give a rough effect. In imported papers you will find good shades of this color in a sort of blurred design, and it is a most effective background for blue china. You might have curtains of ecru net next the windows, with inner ones of blue pongee in the tone of your blue china. A room with an orange wall should not be too light. If you use blue curtains at the windows, you will have to have double faced portieres which is troublesome. Why not restrict the blue to the china and have brown portieres, about the color of the woodwork of the other rooms?

With sand finished walls would suggest a perfectly plain chimney piece, faced with tiles in brown tones to a height of five feet, with a wide, plain shelf of the brown wood, supported by wooden brackets, and wrought iron fireplace furnishings.

As to the matter of lighting would suggest a dome for the dining-room, in orange glass, harmonizing with the walls, with side lights for the living room, with a small bulb at the centre of each side wall, at the line of the picture moulding, to be used when extra light is needed. A single bulb in the centre of the ceiling will probably light the reception hall sufficiently, with a portable light on a side table, for reading.

H. C. B.—Am just completing an eight-room brick house and would like suggestions as to interior decorations. My living-room is 25x16 with the staircase at one side, and faces east and south, wood-

'mid pleasures and palaces



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work mahogany-stained birch. Would you have the same finish in the adjoining library? Living room is to have a brick mantel and what color should it be? I have mahogany furniture for the library and am going to buy a colonial sideboard, in mahogany, for the dining-room. Would you use brick mantels in the library and dining-room? And which is preferable with mahogany woodwork, "brushed" or polished brass hardware? And will you suggest a decorative scheme in blue for the southwest bed-room on the second floor.

H. C. B.—Ans. Would certainly have adjoining library and living-room finished alike in mahogany. Would suggest white woodwork for the dining-room, with mantel to match, as more appropriate with colonial furniture. For the brick mantel in the living-room would use a reddish-brown brick toning in with the wood, and have a mahogany mantel in the library. Should prefer the polished brass for hardware.

In the southwest bed-room, you will find an all-blue scheme effective. The woodwork may be either white or stained brown oak, depending upon the furniture you wish to use. For the upper third, use a paper with a soft blue ground and a pattern of pink flowers and dull green leaves against a brown trellis. Below this use a cartridge paper in plain blue, a little darker than the blue ground. With white woodwork have a blue picture moulding, with oak woodwork matching moulding. You will be much less restricted as to the things you can put into the room than with the ordinary blue and white schemes.

H. G.—Asks for suggestions for papering and curtaining a three-room, temporary house, facing south, ceilings only eight feet high.

H. G.—Ans. With so much tan color in carpet and curtains, and with your golden oak furniture, a tan colored paper will be monotonous and glaring. Would paper dining and living-room alike with a two-toned, striped paper, in a low-toned olive. You will find such a paper with a not very defined stripe, still giving an effect of vertical lines, in the buckram or fabric papers. Your carpet and curtains are very good, but with so much pattern in them should use plain curtains next the panes, scrim or net. With your very low ceilings, striped papers are almost a necessity.

As for your blue bed-room, a cold scheme has a beauty of its own, but is best in a sunny exposure. The touch of black is certainly a great help to it, but it should be brilliant black, not dull. Since you have such a strong light, paper your room with a gray blue paper with a floral stripe in self tones. Paint the woodwork white and use a blue and white cretonne for furnishings. In the living and dining-rooms, paint the woodwork olive, darker in tone than the paper.

L. J. S.—Is there any good substitute for linseed oil to mix with white lead for outside painting? Could you recommend fish oil for such work (or is it apt to turn yellowish) now that linseed oil is so costly?

Do you prefer mixing your own lead and oil, instead of using good, ready-mixed patent paint?

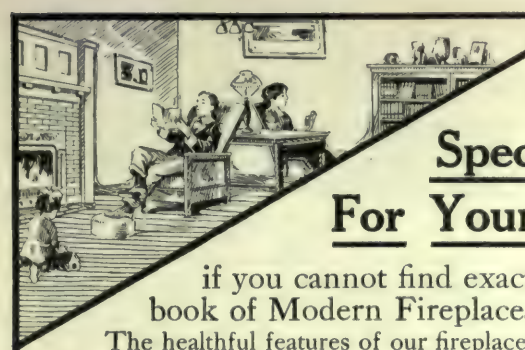
L. J. S.—Ans. There is no good substitute for linseed oil. The truth of the statement will be obvious to any one who considers the readiness of dealers and consumers to pay more than double the normal price for the sake of getting the pure article.

Fish oil is often used as a substitute. Alone, and crude, it is rather poor. In combination with other substances it answers, in a way. We do not know that it is more likely to turn yellow than any other oil. Its weak point is its slow drying quality. It never gets as hard as linseed oil and its remaining soft reduces its wearing qualities.

The fact that it is often used in the manufacture of prepared paint is itself a reason why it is safer to have the ingredients mixed on the premises.

Even with oil at $1.25 per gallon the increased cost of material for a good sized house, two coats, would not exceed $5.00, while the difference in results is worth ten times that sum.

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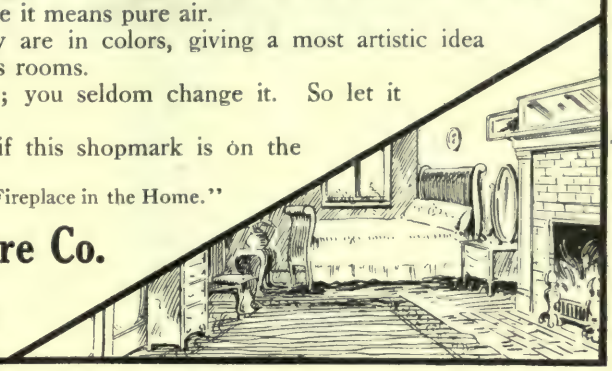
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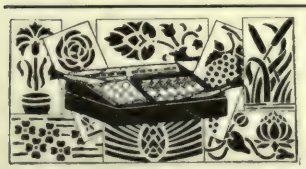
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New York



Courtesy as an Asset.

WE all of us are quite ready to place courtesy among equals as one of the essentials of gentle living. In fact, the whole structure of society is based upon the mutual respect, of which courtesy is the outward expression. And a large part of the training of children is in manners, manners which after a time cease to be manners, having become a habit, the habit of courtesy.

But too many of us draw a subtle distinction between the objects of courtesy. Courtesy, we reason, is more or less dependent upon equality, conditioned upon a definite social status, equal or superior to our own. Not in so many words, but practically, in the translation of thought into action, our underlying conviction makes itself evident.

If courtesy is worth anything at all, it is an expression of feeling, the outward sign of an inward grace of kindliness and good will. In their last analysis, our manners and customs are this, or they are mere foolishness, and contrary to the doctrine of enlightened self-interest, which is the only thing left, if we cease to exercise good will to others. Put matters onto that plane and we must admit the universal obligation of courtesy to all men.

So much for the ethics of the matter. A word as to its expediency. For we are swayed by so many motives, at the mercy of such a complexity of suggestion, that quite often the whole reduces itself to the simple question, "does it pay?" Not that we mean to overlook the higher issues, but that they are so obscured that native self interest, being stronger, comes to the front. Does it then pay to practise the same courtesy at the back gate or the side door as in the drawing room? Does it make any difference if I am short with the washerwoman, or haughty with the grocer's boy, or hurt the feelings of my maid of all work, except in so far as it injures my own self respect?

The best sort of an illustration is a practical one. There was once a woman who lived in a perpetual row with all the people who served her in any way. She was a good woman, a woman of warm affections, but with a brusque manner and a hasty tongue. One day she was visiting a friend in an apartment, and sat in the dining room while the other woman was called to the elevator shaft for a colloquy with the butcher. She listened to the conversation and when her friend returned she said: "If you always speak in that tone I understand why you never have any trouble with your tradespeople."

There was another woman who always employed colored help, was always changing, and very badly served, when she did succeed in keeping a maid over the first week. The colored cook of one of her intimate friends summed up the situation. "Now you know, Miss Mary, that Mrs. Brown aint going to keep a girl no length of time. She don't know how to smile."

Both these women were good women, they treated their servants well, the first woman was exceptionally prompt in money matters and considerate in many things the other was conscientious to a fault in every relation, but both of them were in trouble all the time because they drew a sharp line between the right of equals and inferiors to their good manners. And the woods are full of just such people, and as



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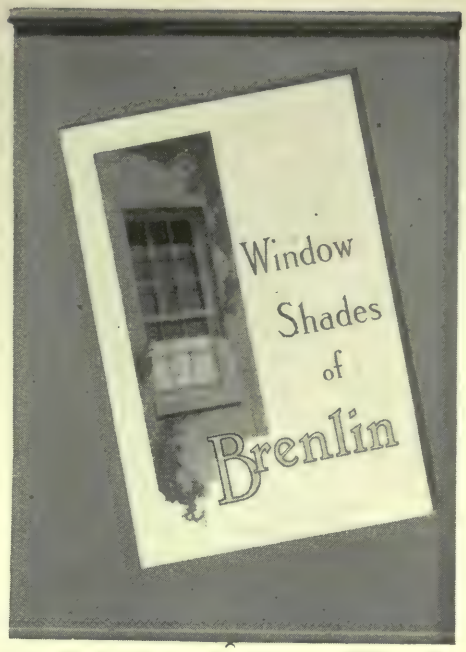
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Varying the Monotony.

Toward the end of winter, and in the early spring a deadly monotony is apt to settle down upon the average table. Meats are much the same, month in and month out, but there is little fresh fruit and the winter vegetables are comparatively few. To secure a reasonably varied table is a good deal of a problem, and the temptation to fall back upon the convenient tin can is strong. And usually the contents of the tin can are neither cheap nor particularly good, being at the best a makeshift. Lent, which might be a relief, is often felt to be merely an additional complication.

Cereals and Cheese.

It is possible to get a good deal of variety by various cereals cooked as vegetables Almost any cooked cereal can be cooled cut into slices and fried. An egg beaten into it is an improvement, but not necessary. With rice, farina, or hominy, beat into it, while still hot, a liberal allowance of sharp, grated cheese, till they are perfectly smooth, with or without tomato sauce, we have always with us. Not everyone knows that the Italian paste bought in bulk is cheaper and very much better than the French article, sold in packages. And many think that any sort of cheese will answer, not knowing that a very sharp cheese is better and goes much further. Another palatable and little known concoction is made by beating together two eggs and half a pound of grated cheese, till they are perfectly smooth, and pouring over them a can of tomatoes, stewed until soft and highly seasoned, with pepper, salt and butter. Stir the mixture as you pour, and cook it over hot water until it thickens. This is substantial enough for a course by itself, and should be served with, not on, buttered toast.

Celery Root and Lima Beans.

Celery root, or celeriac, is usually sold by German grocers, and is much better cooked than the stalks. It is pared, boiled till tender, cut into dice and served with a cream sauce, like oyster plant. Thinly sliced and laid upon lettuce leaves, it is a good salad.

Another winter vegetable, which ought to be better known is dried lima beans. Put to soak after breakfast, for dinner at night Cooked slowly for about an hour and a half, and well buttered, they are good and very nutritious. Those left over are palatable with oil and vinegar or, with an addition of tomato make an excellent soup. Lentils, another legume, make the very best of all the soups of their class, and are also good when boiled for a vegetable.

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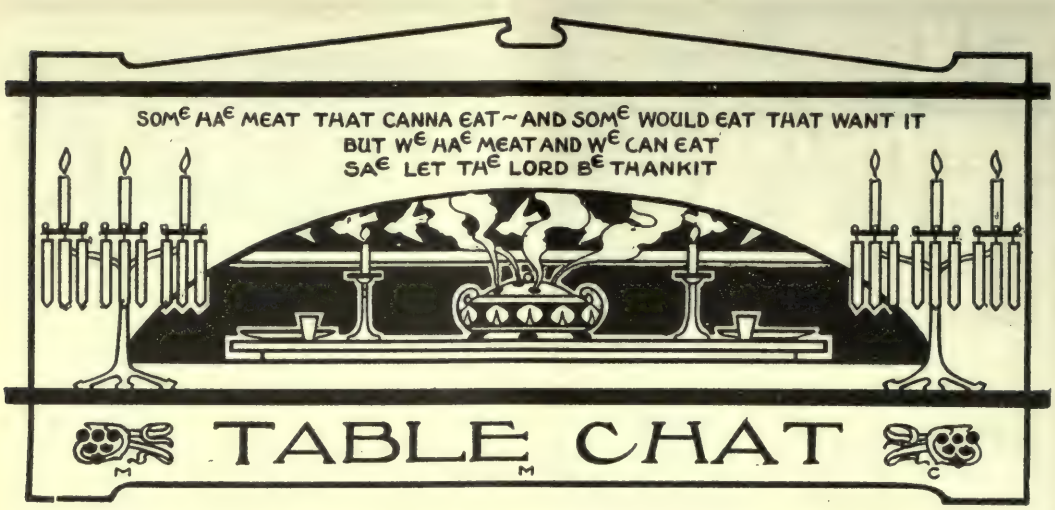
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Wild Flowers for the Table.

PEOPLE who live within easy reach of the woods have delightful table decorations at their hand for nothing but a little trouble. With March, the early wild flowers begin to come out in sheltered places, and with care wood violets, hepaticas, or trailing arbutus can be domesticated for a time. Take up the roots with care, leaving a good deal of earth about them, and plant them in a basket or earthen dish, covering the soil with moss. And do not forget to add some tiny ferns. A birch bark basket is specially pretty for this. Care must be taken not to let transplanted wild flowers stay in a warm temperature, and they must be removed to a cool place immediately after the meal.

Then there are always pussy willows, and even the city people can buy them on the corners of the streets. Massed in a silver jug, they were used for a centerpiece at a violet luncheon, with bunches of violets at the plates, silver candlesticks and silver filagree shades over violet silk of a pinkish tone.

Avoid Fussiness.

The bare table with doylies would seem to be a step in the direction of simplicity, but it sometimes affords an opportunity for the multiplication of details. The sets sold in the shops consist of a centerpiece, plate and tumbler doylies. Enterprising people add doylies for the bread and butter plates, others for bonbon dishes, even tiny ones for individual salt cellars, or for salted almond dishes. This sort of elaboration makes the fashion ridiculous, a fashion otherwise pretty and sensible.

A Compromise.

A satisfactory compromise between the large table cloth and doylies, which may be used with a not too large round table, is a circular cloth, reaching to within three or four inches of the edge of the table. Such a cloth may have a lace or a scalloped edge, and be made of plain linen or of heavy damask. If of linen, a wreath or other circular pattern may be embroidered in the centre, defining a circle about eighteen inches in diameter.

Elaborate cloths of this sort have insertions of lace and bands of eyelet embroidery, the embroidery done on strips of linen curved to follow the outline of the cloth and set in in sections, separated by lace medallions.

The Favorite Touch of Color.

There is no disguising the fact that color is coming to its own for table linens. It may be a long time, if at all, before the highly colored and naturalistic embroideries of fifteen or twenty years ago, return, but one sees a great deal of colored embroidery on luncheon sets. It is usually in one color, generally blue or green, and sometimes the color is used merely to accentuate white embroidery, in the shape of jewels, dots, or seed stitches. The effect is very good when the china used is of the same color.

For use in country houses are sets of centre and doilies, with elaborately scal-



Rich Table Effects

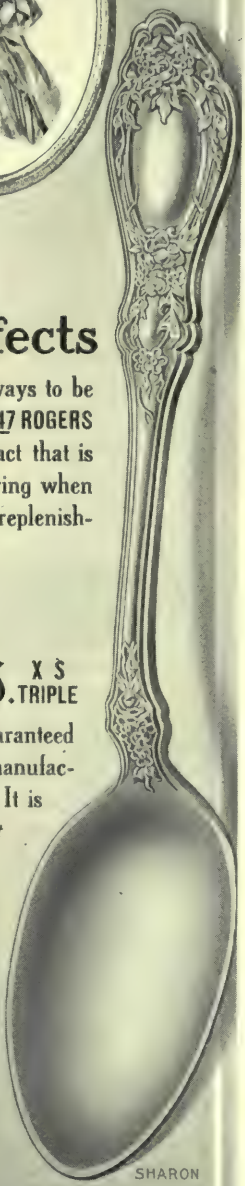
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FOOD comes out of the Leonard Cleanable Refrigerator exactly as it went in—pure, free from odor, delightfully fresh. Your health and the health of your family demand *perfection* in your refrigerator. You can't afford to risk ptomaine poisoning. I have a refrigerator that absolutely eliminates this danger—the

Leonard Cleanable Refrigerator

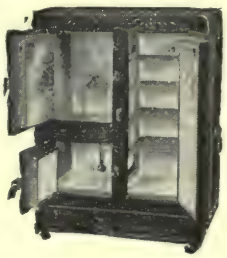
the final, perfected refrigerator built on lines that insure all food remaining in perfect condition. *Tested and approved by Good Housekeeping Institute.* Genuine white porcelain enamel lining, continuous piece, round corners, no seams, no place for dirt or germs. Don't confuse this with white enamel which is only paint. Ours is real porcelain, durable, easily cleaned. Nine wall construction cuts down ice bills. If your dealer can't supply you, I'll ship, freight prepaid, as far as the Mississippi and Ohio Rivers.

Money Back if not satisfied.

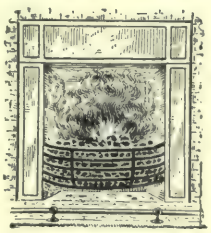
Style No. 4, shown here, size 34½x21x45½, polished golden oak, only $35.00—50 other styles and sizes, shown in catalogue

SEND FOR THE LEONARD BOOKLET

for housekeepers, explaining the cause of unpleasant odors in common refrigerators. Also free sample of Leonard porcelain lining and insulation. Send a postal at once.



C. H. Leonard, Pres.
GRAND RAPIDS REFRIGERATOR COMPANY
138 Clyde Park Avenue
Grand Rapids, Michigan



Many styles of grate and mantels to choose from.

This Grate Does Double Duty

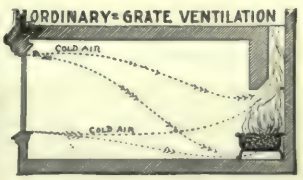
It Combines Perfect Ventilation with Economical Heating

and, with the same amount of fuel, burning any kind, will pay for itself in three years in increased heating efficiency. Heats house in Fall or Spring better than a furnace and takes about half the fuel.

The Jackson Ventilating Grate

is as beautiful as the most artistic ordinary grate and affords the same sense of coziness and cheer; but it ventilates, not dangerously, with air drawn across the room from door and window cracks, ***cold,*** but healthfully with air drawn in from outside thru a fresh air duct, circulated around the fire and sent into the room thru the register over the arch, ***fresh but warmed.*** Gain comfort and save money by investigating. Any mason can set it up from our ***Complete Plans Furnished Free.***

Send for Free Catalog of our wood mantels, and irons, and all kinds of fireplace fixtures, as well as ventilating grates, with explanations, illustrations, full information and prices; also reference to users in your region.



SHUTS OUT COLD AIR CURRENTS

EDWIN A. JACKSON & BRO., Manufacturers
25 Beekman Street NEW YORK

loped edges, worked on cream colored crash, with blue or green cotton. Nine dollars and a half is the price asked for a set of twenty-five pieces, and they could be duplicated by the home worker for about a dollar.

Dinner services and sets of table linen are always calculated upon a basis of twelve people. But a family of twelve is rare, and the most satisfactory service is bought from an open stock pattern, in eights. So, unless the family is exceptionally large, a set of doylies should have two centrepieces to each half dozen plate and tumbler doylies.

Finger Bowl Doylies.

Finger bowl doylies are less important than they once were, and are no longer considered indispensable, but they afford scope for a dainty taste in needlework, and are nice to have for great occasions. Lingerie ones are extremely pretty, made of the finest and thinnest of linen lawn, with an edge either of scallops, or of Irish lace, and with a monogram or initials embroidered at one side.

Another lingerie effect permissible for the table, is the candle shade of fine lawn and dainty embroidery, used over a pink or yellow silk shade. The colored lining is rather essential to the good effect of these shades, which are adorned either with a monogram or with a pattern in tiny eyelets. These same lingerie shades in a larger size are used for candles on a dressing or bedside table. They are generally used with either silver or glass candlesticks, or else with those of white faience.

Trays for Salad Dressings.

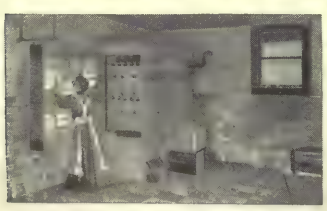
Too often the oil cruet works havoc with the tablecloth, and certainly salad oil makes the very nastiest stain known, and the hardest to remove. A great variety of trays with wooden or metal edges, with porcelain bottoms, can be had in all sizes and shapes and one large enough to hold all the materials for dressing a salad is an excellent investment.

Larger sizes of these trays are much in demand for afternoon tea, and it is usual to have the glass bottom backed with a bit of decorative fabric, cretonne in a quaint design, or a piece of old brocade. For this purpose the tray has usually a mahogany edge, although there are some very effective ones with a cretonne backing and green wicker edge. For the embroiderer the shops sell backs stamped for working and the tray ready for its insertion. It ought to be needless to say that work for the purpose ought to be handsome enough to look as if it were worth framing, and not merely effective, as so much embroidery is.

About the Serving Table.

The serving table is primarily for use, the sideboard is intended rather for the display of one's treasures, silver, fine glass choice pieces of china. It is true the function is often abused, but such it is. But the serving table is meant as a help in the orderly service of the meals. Therefore it should not so loaded that there is not a square inch upon it which can be of service Rather it should hold only those things which are in constant use, yet must be removed from the table with the change of courses. The china and silver for the dessert, the dressings and plates for the salad, the finger bowls, the after dinner coffee cups in common use, these are the things which ought to stand upon the side table not the little used samovar, the silver teapot of our great grandmother, or the punch bowl. For the same reason the cover of the serving table ought to be a simple one and easily kept clean. Well arranged, it adds much to the appearance of the dining room, but appearances must be subordinated to utility in its case.

NO DELAY TO GET THE CLOTHES DRY ON WASH DAY



When using the *"CHICAGO-FRANCIS" Combined Clothes Dryer and Laundry Stove.* Clothes are dried without extra expense, as the waste heat from the laundry stove dries the clothes. Can furnish stove suitable for burning wood, coal or gas. Dries the clothes as perfectly as sunshine Especially adapted for use in Residences, Apartment Buildings and Institutions. All Dryers are built to order in various sizes and can be made to fit almost any laundry room. Write today for descriptive circular and our handsomely illustrated No. K 12 catalog. Address nearest office.

CHICAGO DRYER CO. OR **SHANNON MFG. CO.**

385 Wabash Ave., CHICAGO, ILL. 204 E. 26th St., NEW YORK CITY

Write for Our Free Book on Home Refrigeration

It tells you how to select the Home Refrigerator—how to know the good from the poor—how to keep a Refrigerator sweet and sanitary—how your food can be properly protected and preserved—how to keep down ice bills—lots of things you should know *before selecting any Refrigerator.*

Don't be deceived by claims being made for other so-called "porcelain" refrigerators. The "Monroe" has the only real porcelain food compartments made in a pottery and in one piece of solid, unbreakable White Porcelain Ware over an inch thick, with every corner rounded, no cracks or crevices anywhere. There are no hiding places for germs—no odors, no dampness.



Always sold DIRECT and at Factory Prices. Cash or Monthly Payments.

The "Monroe"

The Lifetime Refrigerator



The leading hospitals use the "Monroe" exclusively and it is found today in a large majority of the very best homes. It is built to last a lifetime and will save you its cost many times over in ice bills, food waste and repair bills.

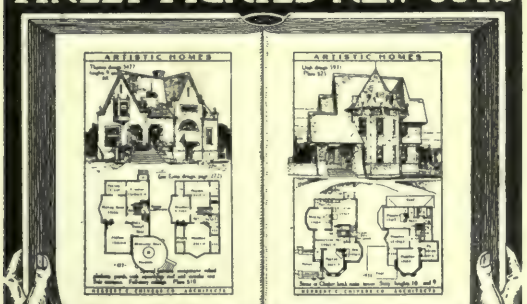
The "Monroe" is never sold in stores, but direct from the factory to you, **freight prepaid** to your railroad station, under our liberal **trial offer** and an ironclad guarantee of "full satisfaction or money refunded."

Easy Payments We depart this year from our rule of all cash with order and will send the "Monroe" freight prepaid on our **liberal credit terms** to all desiring to buy that way.

Just say, "Send Monroe Book," on a postal card and it will go to you by next mail. (10)

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FINELY PRINTED NEW CUTS



IF EVER YOU INTEND *to* BUILD
SEND *for the* ABOVE BOOK NOW

ARTISTIC HOMES

A 1000-PAGE BOOK OF OVER 1500 PLANS, HANDSOMELY BOUND, PRICE $1.00. FORMER PRICE $2.00. EXPRESS PREPAID FOR 25c. PURCHASERS OF THIS NEW EDITION WILL NEED NO OTHER, AS IT CONTAINS BY FAR THE LARGEST NUMBER OF HOUSE DESIGNS EVER PUBLISHED.

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409 ONE AND TWO-STORY COTTAGES OF $300 TO $1500, 340 RESIDENCES OF $1200 TO $1500; 379 RESIDENCES OF $1500 TO $2500; 225 RESIDENCES OF $2500 TO $9000; 100 CALIFORNIA BUNGALOWS. I HAVE DESIGNED CHURCHES, SCHOOLS, LIBRARIES, THEATRES, STORES, HOTELS, BANKS, ETC., ALL OVER THE U. S., AND HAVE A SPECIAL DEPARTMENT FOR THE PLANNING OF RESIDENCES. BOOK OF 32 CHURCHES, 25c. BUNGALOW BOOK, 50c

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TRADE MARK

Solid Braided Cotton

Strong Durable Economical

Look for the spots, they are your guaranty of quality

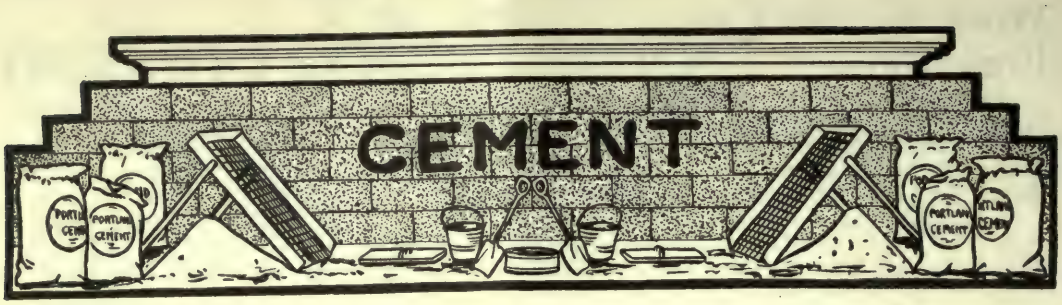
Every architect or builder knows that Samson Spot Sash Cord will outwear metallic devices or any other cord many times over.

It runs easily and smoothly over pulleys and resists abrasion much longer than twisted or common braided cord.

Always specify and insist upon Samson Spot Cord—only about 25c per window is first cost—good for at least 20 years.

For sale by hardware dealers. If your dealer cannot supply you, order of us direct, giving his name. Write to-day anyway for our illustrated booklet No. 4, showing the various kinds of Samson Spot Cord. A handy guide in buying.

SAMSON CORDAGE WORKS
Boston, Mass.



Concrete Bin Saves Wholesale House From Effect of Spontaneous Combustion.

TWO hundred and twenty-four tons of coal, ignited by spontaneous combustion, have been burning for five days in the mammoth spare bin of the wholesale dry goods house of Tibbs-Hutchings & Co.

Nobody knew it was on fire. It may be smoldering yet. They may have to take the whole bin full out to extinguish it.

Insurance men call it one of the most remarkable cases on record. Only the fact that massive concrete walls faced the fire bottom, sides and top, saved what might have been a conflagration. The fire could not spread. There was nothing for it to spread to. The employees, however, feel considerably relieved today to know that if they are still walking above 224 tons of burning coal, at least everybody knows it's there and the fire department has the responsibility now.

For five days plumbers, gas and steam fitters, bookkeepers, porters, watchmen and employees generally have been hunting the origin of a queer smell of gas. No matter where they looked, nobody could find anything. All the time the smell kept getting worse.

Yesterday H. E. Hutchings had an inspiration.

"That's not illuminating gas," he said, suddenly; "it's coal gas."

A dozen men descended and attacked the door of the big spare bin, and a thick, suffocating mass of smoke poured out into the basement. It was 224 tons of coal, smouldering away. The house fire brigade got busy, and all the fire that showed was soon out, but it probably will be necessary to take out all the coal and get at the smouldering heart of the fire.

The coal was put in damp, say the insurance men, and sweated. The incident is considered an eloquent argument in favor of fireproof construction.—Minneapolis Journal.

Finishing a Concrete Building Wall by Brushing.

A brushed finish was required in constructing the concrete walls of the Tuberculosis Hospital at Rockville, Ind. The contractors, Brubaker & Stern, give the following data regarding the work in a paper before the Indiana Society of Engineers:

No special material was used to secure this effect. Precaution was taken, however, to make the mixture as uniform as possible, and the forms were well spaded to bring the pebbles next to the forms. The foundations of the various buildings ranged from 3 to 6 feet in height. The forms of the face were taken down when the concrete was 24 hours old, and the entire surface, thus exposed, was brushed immediately before the cement set hard. They used plain water for most of the work, and only a few times did they have to resort to acid. After the men were broken in they became quite expert, and they had no trouble in getting a good effect.

The contractor informed us that the work cost him approximately 2 cents per square foot in addition to the cost of the concrete wall; that is, the extra cost, in obtaining the brushed surface, was 2 cents per square foot. The specifications for the work follow:

Forms.—Forms are to be built in sections and so arranged that each section can be taken down at the proper time, to give access to the face of the concrete. Molds are to be nailed onto the face of



Asbestos "Century" Shingle Roof—Tipple and Coal Bin of the New River Collieries Co., Sun, West Virginia

Asbestos "Century" Shingles

"The Roof that Outlives the Building"

MAINTENANCE economy is the watchword with industrial concerns these days. High upkeep charges on a building cut into dividends.

How much repairs and painting any old-time roofing will add to the year's expenses depends on the size of your building.

Asbestos "Century" Shingles are indestructible. Officials keen on getting facts will tell you that these Shingles need *no repairs—no painting*. Their first cost is the only cost—and you pay no more for Asbestos "Century" Shingles than you expect to pay for a *first-class* roof.

In every industrial centre in the world you will find industrial buildings of all types roofed with Asbestos "Century" Shingles.

They are the *first practical lightweight roofing of reinforced concrete*. Weather-proof—fireproof—time-proof. Cannot split, blister, crack, rot or rust.

You can get Asbestos "Century" Shingles in three colors—Newport Gray (silver gray), Slate (blue black), and Indian Red—in numerous shapes and sizes. Ask your responsible Roofer about Asbestos "Century" Shingles. Write for our illustrated Booklet—"Reinforced 1911"—full of valuable pointers for the man with an industrial building to be roofed.

The Keasbey & Mattison Company

Factors

AMBLER, PENNSYLVANIA



Beauty—Economy—Durability

The Three Vital Qualities of

Oak Flooring

¶ The beauty of OAK FLOORING is constantly becoming more appreciated. There is no question of the superior advantages of OAK FLOORING over any other Hardwood Flooring.

¶ OAK FLOORING is cheaper than carpets. It beautifies any home and exhibits more taste and a greater degree of harmony with its other surroundings than any carpet ever made. A parlor, hall, or dining room is half furnished when laid with handsome OAK FLOORING.

¶ Specify and use OAK FLOORING. Its great wearing qualities insures against repair bills. Any good architect will tell you that OAK FLOORING is an investment, as it is a prime factor in determining values.

Write us for further information.

The Oak Flooring Bureau

421 Hammond Bldg., Detroit, Mich.

the forms to carry out the design as called for in the details. Lintels over doors and windows are to be run separately, and the forms are to be built accordingly.

The proportions are to be as specified above. The gravel must be screened and the mixture must be absolutely uniform to get the proper effect. Concrete is to be dumped into the forms in layers and kept level. An entire section of the forms must be run at one time, and the forms must be well spaded to bring a uniform mixture to the face of the walls.

Forms are to be taken down in 24 hours, during warm, dry weather; otherwise, to remain as much longer as conditions require. The surface is then to be brushed with wire brushes and water till all of the cement has been washed off, leaving the pebbles or stones exposed and in good relief. If necessary, a small amount of muriatic acid should be added to the water. The best brushes for this purpose are a fine brush, No. 177, and a coarse brush, No. 1082. Care must be taken that the pebbles are not dislodged. If the concrete is too soft to permit brushing, the work must be delayed a sufficient length of time. The returns to the window and door jambs must be treated in the same manner.

Concrete Construction Without Wood Forms.

The initial cost of concrete construction is greater than it should be owing to the lumber required for forms, much of which cannot be used again or at least is of little value. A construction which will be of general interest, is that made possible by the use of Ferro-Lithic Plate, which consists of dove-tailed cross-ribbed steel sheets that act both as form and reinforcement. The concrete is applied on the upper side while a good plastering surface is produced upon the lower side. The absence of wood forms saves time in erection. This construction is being successfully used in the ceiling of the second story in the new freight station of the Chicago and Rock Island railroad, at Kansas City. There would seem to be many similar situations in modern construction where this material will readily find a place, saving both time and money.

THE NATIONAL BUILDER

362 DEARBORN STREET
CHICAGO
Offers this
Great Building Opportunity:

12 complete plans with estimate of material and price . . . For **$1.00**

The plans are medium priced, up-to-date homes. The front, side and rear elevations with floor plans and details—drawn to quarter-inch scale, are on a

LARGE SUPPLEMENT
36 x 24 inches

Plans Drawn to Scale the Same as a Regular Blue Print and You Get One *Every Month*

A complete bill of materials with an accurate estimate of cost accompanies each plan.



THIS IS ONE OF THE HOUSES
It was planned by Chicago Architects, who rank high as designers

It is of moderate cost and the outside is of Plaster Work, now so popular.
Besides this, each number has other houses of low cost, including a Beautiful Bungalow with plans.
The writers, selected by Architect Fred T. Hodgson, Editor, cover the entire building field.
Send in the coupon and you may find something new and good for the new home you are planning.

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With the help of this free book—**"Concrete Construction About the Home and on the Farm"**—you can make your home more livable. Send for it today.

ATLAS PORTLAND CEMENT

is pure and absolutely uniform. It is made from the finest raw materials. We also make stainless ATLAS—White Portland Cement for decorative purposes.

Other books in the ATLAS Cement Library:

Concrete Houses and Cottages	
Vol. I—Large Houses	$1.00
Vol. II—Small Houses	1.00
Concrete in Highway Construction	1.00
Reinforced Concrete in Factory Construction (delivery charge)	.10
Concrete in Railroad Construction	1.00
Concrete Cottages	Free
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THE ATLAS PORTLAND CEMENT CO.
DEPT. L, 30 BROAD ST., NEW YORK

Largest productive capacity of any cement company in the world. Over 50,000 barrels per day.



Make this Trade Mark your permanent guide for Good Varnish.

THE varnishing of your floors, doors and woodwork should receive your personal attention—at least to the extent of selecting the make of varnish to be used.

It's as important a detail as any you have to consider in the building of your home. By looking for the Berry trade-mark and insisting upon

Berry Brothers' Varnishes

you will be sure not only of satisfactory appearance but of greater durability and ultimate economy.

The four varnishes listed below supply every varnish need for good finishing in homes and other buildings.

TRADE LIQUID GRANITE MARK

For finishing floors in the most durable manner possible. The best-known and most widely used of all varnishes.

WOOD LUXEBERRY FINISH

For the finest rubbed or polished finish on interior woodwork. The standard to which all other varnish makers have worked.

ELASTIC INTERIOR FINISH

For interior woodwork exposed to severe wear and finished in full gloss. Stands the action of soap and water to an unusual degree.

ELASTIC OUTSIDE FINISH

For front doors and all other surfaces exposed to the weather. Great durability under most trying weather conditions.

Send for Booklet: *Choosing Your Varnish Maker*

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Largest Varnish Makers in the World

Executive Offices, *Detroit, Mich.*

Dealers, Everywhere

CEMENT—Continued

Cement Age and Concrete Engineering Consolidated.

Cement manufacturers, architects, engineers and contractors will be interested in the announcement that Cement Age, of New York, and Concrete Engineering, of Cleveland, two of the leading monthly publications in the cement field, have been consolidated.

Beginning with the January, 1911, issue, the two magazines will be consolidated under the title: "Cement Age with which is combined Concrete Engineering."

It is the purpose to preserve the best features of both the magazines, thus maintaining the prestige each has won. The use of cement from the architectural and engineering standpoints, as well as its manufacture, will be thoroughly covered, together with the popular features that are of such great interest to the general public.

Allen Brett, editor of Concrete Engineering for the past two years, will take the position as Associate Editor of the new publication, and Arthur E. Warner, formerly Business Manager of Concrete Engineering, will become Western Manager. There will be no change in the present staff of Cement Age.

Houses of Concrete.

About two hundred houses for working men are being built at Gary, Ind., by the American Sheet & Tin Plate Co. This is probably the first instance where concrete construction has been used in such an extensive home-building enterprise. Steel forms, patented by and built for the company, will be used in casting the monolithic concrete walls. Universal Portland cement will be used throughout in the concrete.

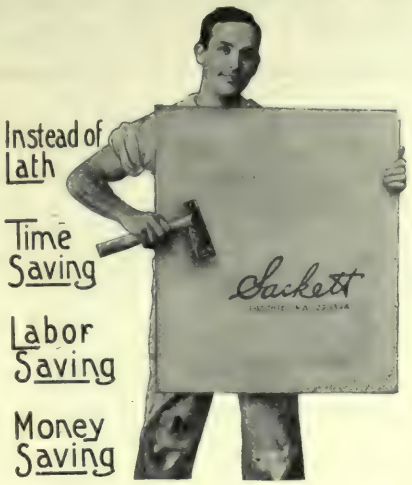
This experiment is being watched closely by many big industrial corporations throughout the country, many of whom have been experimenting with concrete in the building of houses for working men. The success of the venture will mean much for the future of concrete in house construction.

We are in receipt of a plan book of 150 designs by U. M. Dustman which will be of interest. The price is $2.00 and it is published by Charles C. Thompson Co., Chicago.

You Should Use

SACKETT PLASTER BOARD

INSTEAD OF LATH



in that new building of yours because SACKETT insures greater comfort, better walls and will save you future repair bills.

¶ SACKETT is the ideal lathing material. Has superior advantages which you cannot afford to overlook. SACKETT is fireproofing, soundproofing, heatproofing, coldproofing and lathing in one simple operation. SACKETT comes in stiff, true, firm sheets, 32" x 36", about the thickness of lath and is nailed direct to the studding or joists and plastered over.

¶ SACKETT Plaster Board and U. S. G. Hard Wall Plaster bond together perfectly and make solid, durable and sanitary walls of unequaled quality—the kind of walls that will make your building worth more.

¶ Only the conspicuous merits of SACKETT can be presented in any single advertisement. Our booklet K covers the subject thoroughly and contains information of vital interest to YOU. Send for it, and we will also mail you a sample of SACKETT Plaster Board showing its use in connection with U. S. G. Hard Wall Plaster.

UNITED STATES GYPSUM CO.

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Fresh Air and Protection
against intrusion can be had with the
IVES WINDOW VENTILATING LOCK



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ASK YOUR HARDWARE DEALER FOR THEM

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HESS Sent on Approval FURNACE



No. 48 "Leader" Hess Steel Furnace Price $49
Delivered East of Omaha and North of Ohio River Pipes and Registers Extra

We will deliver a complete heating equipment at your station at factory prices and wait for our pay while you test it during 60 days of winter weather.

The entire outfit **must satisfy you** or you pay nothing. Isn't this worth looking into? Could we offer such liberal terms if we didn't know that the **Hess Furnace** excels in service, simplicity, efficiency, economy?

We are makers—not dealers—and will save you all middlemens' profits. No room for more details here. Write today for free 48-page booklet which tells all about it.

Your name and address on a post card is sufficient.

HESS, 717 Tacoma Bldg., Chicago



"REPUTATION AND QUALITY COUNT"

$25.85

For this elegant, massive selected oak or birch, mahogany finished mantel

"FROM FACTORY TO YOU"

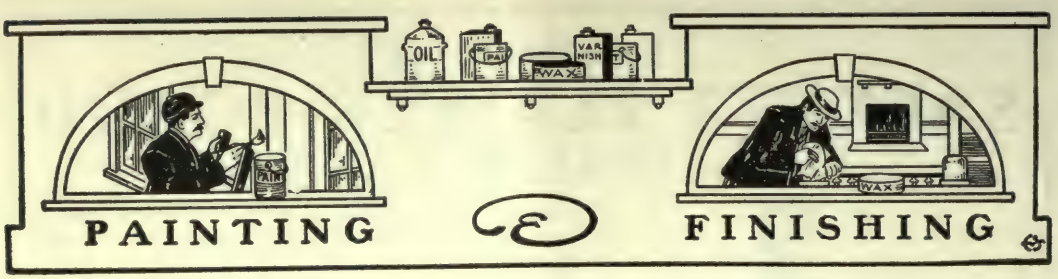
Price includes our "Queen" Coal Grate with best quality enameled tile for facing and hearth. Gas Grate $2.50 extra. Mantel is 82 inches high, 5 feet wide. Furnished with round or square columns, full length or double as shown in cut.

Dealers' price not less than $40.

CENTRAL MANTELS

are distinctive in workmanship, style and finish and are made in all styles—Colonial to Mission. CATALOGUE FREE—Will send our new 112 page catalogue free, to carpenters, builders, and those building a home.

Central Mantel Company
1227 Olive Street **ST. LOUIS, MO.**



A Good Wall Size.

DISSOLVE separately one pound of white glue, one pound of white soap, and two pounds of pulverized alum, in boiling water, and when dissolved and still hot mix perfectly together; thin for use, cold, with water to make it proper consistency. It need not be heavy, but rather thin. This gives an excellent surface for any sort of wall finish.

Thinning Paint With Turpentine.

A correspondent wants to know if it would be well to add the turpentine to a paint intended for interior use a day or so before required for use. No, it is not best, because the turpentine will evaporate unless perfectly sealed, and will oxidize and fail to give the dead effect desired. It is best to mix oil paint a day or even several days before use, as it will go on easier and wear better for thus maturing; but not so with turpentine paint. Mix such paint thick, and leave out dryers and turps until wanted for use.

Good and Bad Wall Paper.

First impressions count for much in everything and nowhere more than about a home. Poor taste in outside painting, a miscellaneous collection of red and green flower pots and boxes in the yard, unswept walks, an untidy entrance and finger marks about the door all create prejudice.

A correspondent inspected a new house just offered for sale and called a model. He says as they entered the reception hall the attention was immediately fixed on the wall paper of the living room. Detached bunches of stiff red tulips of more than natural size with bright green leaves were scattered over a plain white background giving a most glaring effect. They knew that no picture could be hung on the wall, no rug, cushion or drapery used unless possibly of deep dark green.

At best, who would want to live the year round in this mimic garden of mammoth tulips, each exactly like the other. It is no overstatement to say that with the exception of that wall paper the house was charming both in convenience and decoration, and yet it left a great sense of dissatisfaction. Later it was visited with another home-seeker and it was found that the tulips had been replaced by a cream-colored paper, to which was given a little sheen by narrow satin stripes. Anything and everything would combine with that refined wall covering.

Green is now often seen in dining rooms and it is a great relief from the deep red which was either imposed upon or selected for nine out of ten dining rooms for several years. The dining room in the house just referred to has dark weathered oak finish and a beamed ceiling. Five feet from the baseboard to the wide plate rail the wall is covered with an olive-green canvas Above the rail is a series of small light-colored panels into which hang bunches of purple grapes and a tangle of the leaves run along the top of the room.

To Size and Kill Coal Tar.

If it cannot be scraped off or otherwise removed, nothing will prove so good, for keeping back coal tar from showing through paint, as shellac varnish.

How to Make Flat Varnish.

Dead or flat varnish may be made by dissolving four ounces of yellow beeswax in a pint of turpentine in a steam bath or hot water bath. Shred the wax, to hasten the melting. This is enough for one quart of varnish, which will dry quite flat. A little luster may be had by decreasing the amount of wax used. Ordinary varnish will not wear well over this dead varnish.



A House White-Leaded Is a House Well Painted

It is very important that you give much thought to the painting of that house you are planning.

Paint is the protection you can give your house against the wear of time and weather. It is the only insurance you can get against these two promoters of decay and deterioration.

It depends upon the paint you use on your house as to just how much protection you are going to give that house. Poor paint gives poor protection and, inversely, good paint gives good protection.

There is one way that you can be absolutely sure of obtaining paint that will produce perfect protection for your property—real protection that will stand the assaults of time and weather and add years to the life of your house—and that is to have your painter use pure white lead and pure linseed oil paint.

See that the white lead is Dutch Boy Painter white lead—then you will be sure the white lead is absolutely pure.

Any tint, any shade, any finish.

For exterior and interior use.

Look for the Dutch Boy Painter on the keg.

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For the **"Twolayr" Slate Surfaced Material,** Natural Colored Slate of **Unfading Quality** is used, the fine slab-shaped Slate Chips being imbedded into the **Pure Asphalt Composition** so thoroughly—**and put there to stay**—THAT A SMOOTH, EVEN UPPER MINERAL SURFACE (there being two layers of the slate chips) is the result, thus securing the well-known IMPERVIOUSNESS and WEATHER-RESISTING QUALITIES OF SLATE AT **ONE-FOURTH THE COST.**

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PLANT, 56th, Armitage and Grand Aves.

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Good Shellac for Floors.

A French cabinet finisher gives the following recipe for a good shellac varnish for floors or for furniture: Five pounds of pale shellac gum, one ounce of gum mastic, and five or six pints of grain alcohol. Dissolve the gums in the cold, to prevent evaporation of this alcohol, stirring constantly.

Making Damar Varnish.

This is easily made, by digesting together, at a gentle heat, one gallon of turpentine, three pounds of Damar gum, two and one-half pounds of gum sandarach and one-half ounce of gum mastic. After the gums are all dissolved thin down to the proper consistency with turpentine.

Paint Peeling Off.

A correspondent wants to know why paint peels every time a certain building is painted. He states that the house was originally painted with some sort of cheap paint, and that every time since that it has been painted the fresh paint has peeled off. It seems hardly worth while inquiring into the reason for the peeling, but ascertain what will cure the trouble. Doubtless the original paint contained an excess of barytes, and likely some petroleum oil, either of which will cause such a condition as our correspondent tells of. Give it a dose of concentrated lye, not too much, and not too strong, but just enough to slightly soften up the old paint. Then when it has become perfectly dry, do not remove the same, but apply a coat of good raw oil paint over it, let it dry, then another coat of good oil paint, or two more coats, if you desire.

Painting a Plastered Wall.

For a white plaster wall that is to be finished with oil paint, prime it with white lead and oil paint, about five pounds of lead to the gallon of oil, adding a little turpentine. Tint this coat to agree with the finishing coat, it being better to slightly color each coat a little darker up to the finishing coat. Brush the priming well into the wall, and when perfectly dry give it a coat of thin glue size. This will stop all suction left by the oil paint.

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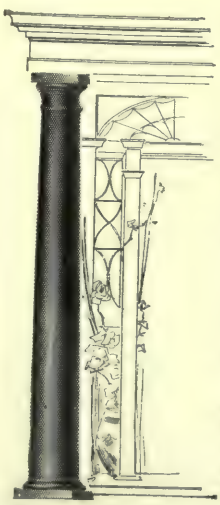
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Notes on Plumbing.

IN the construction of pantry sinks, porcelain or copper is the best material to be used. Not only are these materials easily kept clean and health-giving, but they are the most attractive to the eye of any material suitable for sink construction.

The number of vertical stacks in a building should be reduced to a minimum, and this can be accomplished by concentrating the plumbing work and making branches as short as possible.

Place plumbing fixtures only in ventilated rooms, and confine the plumbing to bath and toilet rooms, to kitchen, pantry and laundry.

All the plumbing fixtures should be trapped separately and safely. The trapped waste from one fixture should never pass through another trap before reaching the soil pipe or the house drain.

Fixtures should be of non-absorbent material; all sharp corners should be avoided, glazed and smooth surfaces are required. Wood and porous stone should be condemned as unsuitable.

There are certain pipes in every house which should never be connected to a sewer or soil pipe—for instance, the overflow pipe from the house tank, and in particular the wastes from refrigerators or ice boxes. These should drip over a trapped and water supplied sink.

Avoid having in the house any fixture which is not in daily use, as the evaporation of water will soon unseal the trap.

Each plumbing fixture should be arranged to empty quickly, like a flush tank.

The Chimney Problem.

The relation of the chimney to the heating system is infrequently considered by either the architect or the builder, and this neglect upon their part when planning and building a residence is frequently the sole cause for the condemnation of a warm air furnace heating system.

It should be borne in mind that a warm air furnace does not possess a draft of its own. The chimney supplies the draft, and a chimney for even the smallest furnace constructed should be not less than 8x8 inches square, or eight inches in diameter, and the following facts, when constructing a chimney, cannot be ignored or overlooked:

A chimney 8x8 inches square, although containing fourteen inches more area than a chimney eight inches in diameter, is no more effective than the latter.

A chimney to be effective must be higher than the peak, the ridge or any portion of the roof.

A chimney must not be extended more than two or three inches below the pipe hole for the smoke pipe of the furnace. If constructed with an air space below the pipe hole, that space—a foul air chamber—will retard the draft.

A chimney apportioned or set apart for a warm air furnace should be used for the furnace only, and no other smoke pipe should be allowed to enter that flue.

When constructing a chimney, cement instead of mortar should be used, because cement will resist the action of tar.

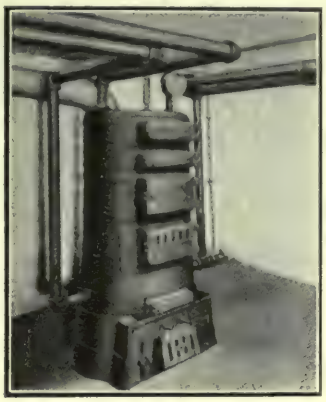
A chimney should be not less in diameter (or equivalent) than one-sixth the area of the grate, nor should the diameter or least width be less than one-third the height in feet—the answer to be expressed in inches—and in no case should the least width of a chimney be less than eight inches, nor, if rectangular or elliptical in shape, should the length exceed twice the width; furthermore, it should be firmly impressed upon all minds that the clear space inside the terra-cotta or other lining of the smallest

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Because of its perfect construction and improved design, the "RICHMOND" Round Sectional Boiler for heating homes either by steam or hot water saves fuel and saves feeding—lessens not only the *expense* but the *labor* of heating the home.

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This small boiler, by reason of its economy, places steam or hot water heat within the easy reach of any home owner, whether the house be new or old.



In this boiler the sections run CROSSWISE instead of up and down.

The bottom section, which forms the ash-pit, is of special heavy construction made in one piece with every provision for expansion, and no possibility of breaking.

Corrugated Fire-Pot

The second section is the firepot, which has an ingeniously corrugated inner edge giving additional heating service and preventing the deadening of the coal at the edge of the fire.

The top sections, in which the water is heated, are a triumph in boiler construction.

The gases are carried up from the firepot in combustion through a series of round openings and overhanging arms in these top sections. They are carried upward until they reach a deflecting section which sends the flames down and back again to do more work.

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When the burning gases finally reach the smoke box they find a new kind of check damper, which automatically prevents the escape of the heated gases into the smoke box until they have done their full work.

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chimney should not be less in area than 8x8 inches, or eight inches in diameter.

Wrong Method in Hot Water Piping.

I have seen a number of hot water heating plants where the application, in my judgment, is wrong and expensive. The return lines, for instance, instead of being carried on the basement ceiling, providing there is no basement radiation, is sometimes carried down below the floor and thence back to the boiler. My experience and judgment is that this is a wrong application of hot water heating design and is bound to work against the system. If the return main is placed on the ceiling you will have the benefit of it, whereas if you place it below the boiler, you will have to force the water back to the boiler, and there is not only the increased expense of running the piping there, but the unsatisfactory operation of the apparatus. In two buildings that I know of, the return mains were taken out of the trenches and hung from the ceiling, with satisfactory improvements in the operation of the system.

In my earlier work, I had a job where there were some basement returns and I conceived the idea of connecting the returns from the upper stories to the basement radiation, but I found it interfered with the whole system. While the basement radiation had to have the returns under the floor, the returns from the upper stories were placed on the basement ceiling and the system worked well.—W. M. Mackay before the Heating Engineers' Society.



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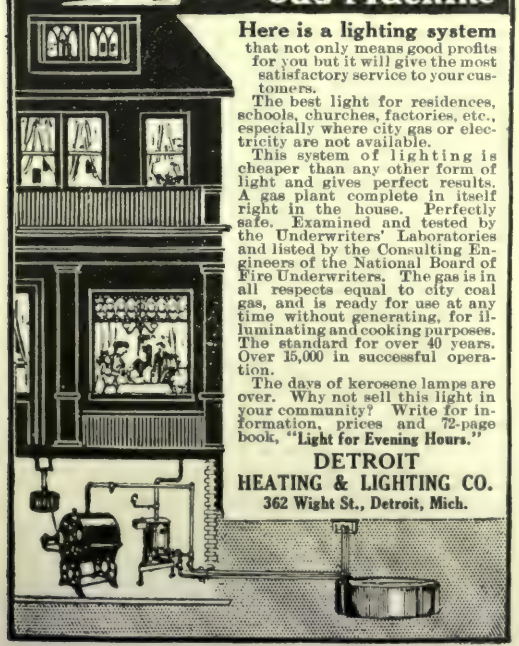
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SPLINTERS AND SHAVINGS

Glass and Porcelain Bricks in Germany.

CONSUL-GENERAL Robert P. Skinner, after investigations, writes from Hamburg concerning the glass and porcelain brick trade:

Three types of glass bricks are well known to the builders and architects in this country. One, the Falconnier hollow brick, of a singular and irregular shape; another, a hollow, rectangular brick similar in shape to a common brick; and, finally, a pressed-glass brick molded into the form of a thick letter U.

Glass bricks can never be more than special-purpose building materials, particularly useful where walls instead of windows are essential, while at the same time light must be provided.

The chief obstacle to their more extensive use is their inability to support more than their own weight, or even this when the wall exceeds 15 feet in height. Consequently girders must be provided or ordinary window openings made in such manner that the walls of glass sustain no pressure. Perhaps in the United States, where steel buildings are constructed so extensively, and where brick and stone walls carry little load, builders might find opportunities for a more extensive use of glass bricks than in this country.

When these bricks are carefully handled they seldom crack or break, but as they are sensitive to changes in temperature, builders must use them with considerable discretion. They are delivered to contractors loosely packed in straw and are shipped in the same manner in carload lots from the factories. The mortar used in laying them should be composed of one part of fine sand to four parts of cement, the latter to include 50 to 75 per cent Roman cement.

The rectangular, hollow, blown glass bricks have become of late the most popular form among German builders. Brickwork of this kind costs about $4.20 per 10 square feet.

The pressed glass bricks made in the form of a thick letter U are the cheapest, but are also the least popular, as changes of temperature facilitate the passage of moisture and dust through the mortar, and as the latter lodges on the inner surface of the bricks they eventually lose their transparency.

It is not understood that any of these forms are protected by patents.

Porcelain bricks are exceedingly uncommon, although there are a few houses in Hamburg, the exterior walls of which are faced with them. These bricks were made near Stettin, from clay found on the island of Bornhol in the Baltic. It seems unlikely that they will ever become popular, as they are very heavy and expensive. A wall constructed of porcelain bricks costs over $1.75 per 10 square feet. Finally, they seem to attract dirt and soon present a bad appearance. Walls faced with glazed clay bricks cost about $3.35 per 10 square feet. In excess of the cost of unglazed bricks, porcelain work costs 25 per cent higher than glazed clay brickwork. It may be concluded, therefore, that porcelain bricks will never come into use except in a limited and special way in inside construction. These white glazed bricks at present are used chiefly in quadrangles and light shafts.

Acetylene Lamps for Inspecting Tunnel Work.

Small portable acetylene lamps are used by the engineers on some of the tunnel contracts of the New York Board of Water Supply in place of the candles which are so frequently employed for illumination in connection with the line and grade, and inspection work in the class of construction. The lamps are of brass and are filled with calcium carbide and water; the burner is protected by a metal shield. It is said by some of those who have used them that they give far better satisfaction than candles for this class of work.

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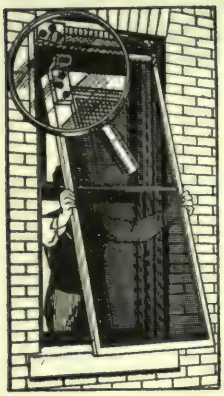
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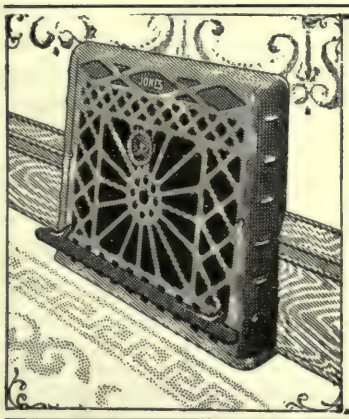
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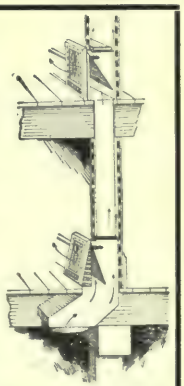
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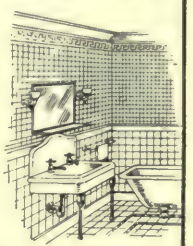
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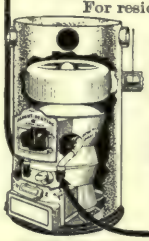
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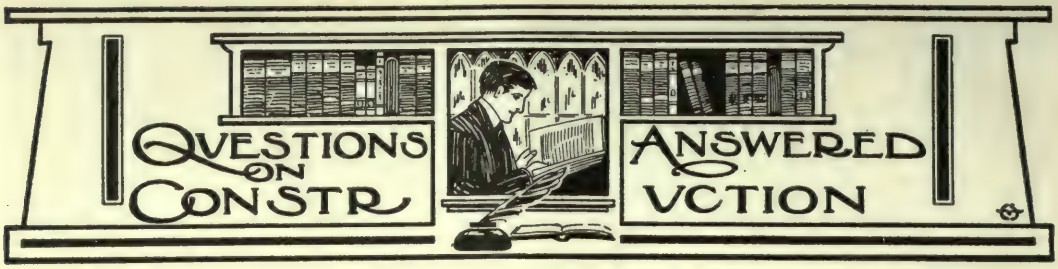
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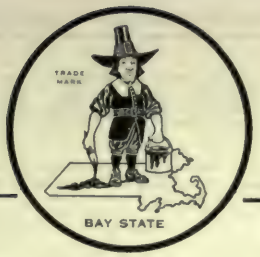
Mrs. L. B. G. Ans.—In reply to your inquiry as to the best system of filtering water into the cistern, will say that an excellent and simple form of filter may be built a few feet away from the cistern and connected to it by a pipe. The filter well is built of brick laid in one to one Portland cement mortar and is divided into two compartments by a partition which may be made of cement. The floor of both compartments will slope, the filter compartment being the higher and sloping towards the compartment which receives the unfiltered water. This allows the solid material to collect at the lowest point away from the filter compartment. The dividing partition does not go clear to the bottom, there being a space between it and the inclined floor. The bottom of the filtering compartment has a perforated bottom upon which is placed a course of gravel, then clean sand and is topped with gravel nearly up to the level of the discharge pipe which is, of course, set high and about the same level as the supply pipe running into the compartment containing unfiltered water. Rain water enters the first compartment and any mud contained therein will be deposited at the bottom of same. The water enters below the dividing partition and passes up through the gravel and sand thus filtering it. There should be an overflow pipe in the first compartment to take care of any water in excess of what can be properly cared for by the filter. The filter can be easily cleaned by stopping up the pipe leading from the filter, pouring water into the filter compartment and pumping out the mud and dirty water from the first compartment. The renewal of the filtering material is thus seldom necessary.

You have asked for the best system, but we feel that probably this will be a greater expense than you care to go to, as it is not ordinarily used. A simple way is to build a brick compartment at one side of the cistern through which the water seeps. The cistern pipe of course going down within the filter. The water simply passes through the brick and leaves the deposit of mud in the main bottom of cistern.

Papering After Kalsomine.

Mrs. R. N. W.—Can you tell me how to make paper stick on walls that have been kalsomined or whitewashed?

Mrs. R. N. W. Ans.—You have inquired as to what is the proper way to treat a wall that has been kalsomined in order to paper it. This will depend on what the finish of the plastering is; whether a smooth coat or whether it is a wall in the rough or sand finish. If the former, then the kalsomine can be washed off with water, after which a thin sizing should be used on the wall before the paper is hung. If the plastering is rough, then take coarse sand paper with a block and rub over the wall. This will take off the high points and will permit of a new coat of sizing to adhere. When you are ready to paper, the wall should be brushed with the paste as you will be unable to get enough paste on the wall paper to properly adhere to such a wall. This application of the paste, of course, wants to be made as the paper is hung, strip by strip. In the case of a wall that is whitewashed, the whitewash must be removed by a vinegar sizing after which the former explained treatment should be given.



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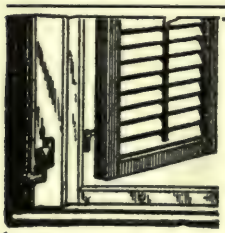
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Not daring an encounter, Hogg contrives to have the elder Harrison summoned to appear before the King. He sets upon the son on the highway and with the aid of his companions runs him through the body. He is carried for dead to the lady's house by Dicky Dirk, a cripple, who was injured by Hogg. Word is sent to the father who fights a fearful battle with Hogg and two companions. He metes out a terrible vengeance and returns to find his son on the road to recovery and the husband of the girl. She insisted upon the marriage that she might nurse him. The book is strongly written and well illustrated. Price $1.00. L. C. Page & Company, Boston.

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By Brand Whitlock.

This is a series of short stories of politcal life by the mayor of Toledo. While the stories have no connection, identical characters appear in some of them. Inside light is thrown upon the politcal situation as it exists in many localities. The writer knows his subject, having been a reporter, an attorney and a leader in politics. The stories are well written and instructive. Price $1.50. The Bobbs Merrill Company, Indianapolis, Ind.

Young Wallingford.

By George Randolph Chester.

This is the story of a young schemer who sets his wits to work to "do" the public on every possible occasion. Yet he does seem to have a sense of the proper attitude toward certain individuals, notably in his treatment of a weak and foolish bank clerk. Sometimes he gets what is coming to him but he always makes good and gets even. The different schemes are really instructive and would perhaps save money for those related to one E. Z. Mark. The company at times seems rather different from what the average reader would naturally feel drawn to, but will perhaps add something to one's store of information.

Young Wallingford finally meets a girl who looks good to him and they are married. Because of her he loosens his hold upon the net and allows the catch to escape, but it seems unlikely that his peculiar talent can be restrained for any considerable period, even by such a charming influence. Price $1.50. The Bobbs-Merrill Company, Indianapolis, Ind.

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IDEAL HOMES MAGAZINE

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HADDEN HALL, A CELEBRATED ENGLISH HOME

This was the seat of the Vernon family for 400 years until the elopement of beautiful Dorothy Vernon, which brought it into the possession of the Rutland family and it is still owned by the present Earl. The dining room is all of oak and the floor was made from a single tree which grew in the neighboring park. The old hall is a grand memorial of ancient splendor.

KEITH'S MAGAZINE

VOL. XXV APRIL, 1911 No. 4



THE BROAD FRONT HAS AN AIR OF HOSPITALITY

—Loring & Phipps, Architects.

A Development of the New England Farm-House

By MARY H. NORTHEND

(Photographs by the Author)

INTO the planning of a house, no matter what its size, careful thought must be put, otherwise, the details will not balance and afford a perfect whole. While the architect is in the main responsible for the success or failure of a dwelling, it not infrequently happens that his ideas are subservient to those of his client, and, in consequence, the inharmonious aspect of many a house is not wholly the architect's fault. The successful dwelling is the one in which harmony of design and convenience of arrangement have been the primary considerations. Prospective house-builders would do well to keep these points in mind, and also to decide definitely just what they want before conveying their ideas to the architect. It is the after thoughts of the house-builder which are often responsible for the bungling of a really good design, and it is a wise plan, therefore, to have everything



A GLIMPSE OF THE HALL AND STAIRWAY

so well arranged that after thoughts will not be necessary.

A house that bespeaks a unity of ideas is that owned by Mr. William M. Bunting, Jr., at Beach Bluff, Massachusetts. Here the design of a New England farmhouse has been varied to suit particular needs, yet the outline of the old-time model is plainly discernible, especially in the deep pitched roof and dormer insertions. The house has been placed to secure the greatest effect of space, and the arrangement of the interior apartments shows a due regard for proper lighting. A wide center projection in the roof at the front affords extra space to the room at that point, and a succession of dormers at the rear performs a like service for a number of apartments. Broad verandas are features of the front and one side, and a cleverly enclosed porch allows of a sun-room for the winter season. A balcony opening from a second floor room, at one end, offers an opportunity for an outdoor sleeping apartment, thus completing the suggestion of open air living hinted at in the broad verandas. Lastly, close shaven lawns and gay flower beds afford a picturesque setting for the soft grey of the shingle finish and the pure white of the trim, and the house complete is a striking example of a carefully thought out scheme.

The hall, while small, is most attractive. Compactness of arrangement is here strikingly in evidence, and an innovation is shown in the placing of a plain paneled door at the landing of the staircase. This door connects with a passageway that leads to the service department, thus obviating the necessity of going through the principal rooms to reach the kitchen, and saving many steps in the course of a day. To the right of the stairway an arched entrance leads to the den—a pleasant room finished in tones of brown and characterized by a



A CORNER OF THE LIVING ROOM SHOWING BOOKCASES IN NOOK

cosy fireplace—and on either side of the hall proper doors connect with the living room and dining room. The color scheme of the hallway is red and white, the two-toned red wall hangings contrasting admirably with the pure white of the trim, and the deep shades of the art square that partly covers the polished floor. Altogether, the hall space has been made the most of, and the placing of the stairway is particularly good as it solves, by an unobtrusive arrangement, an often bothersome feature in a small hall.

The living-room, with its cosy attributes, breathes an atmosphere of comfort, its deep beamed ceiling adding a touch of the massive, always effective in an apartment of sufficient depth to carry it. Green textile hangings and pure white trim harmonize charmingly, and serve as a dainty foil for the deep, rich tones of the rugs scattered over the polished floor. The alcove fireplace is a charming bit, depicting in no uncertain manner the possibilites of a feature not always made the most of, but which when rightly treated, as in this case, affords unlimited scope for effective results. A bookcase flanks the fireplace on the left, and opposite a built-in seat permits of a cosy lounging nook. The lighting here, as throughout the house, is excellent, windows on two sides of the room affording an opportunity for plenty of sunshine and air. A cross draught, so welcome on a sultry summer day, is made possible by the insertion of a diamond-paned casement window in the wall space just at the left of the fireplace alcove, thus allowing a free



THE DINING ROOM WITH BUFFET AND FIREPLACE

current of air from the den through the living-room.

Old gold and mahogany constitute the color scheme of the attractive dining room, which is glimpsed from the living room through the great glass doors that swing from the hallway, and show small panes with mahogany framings. The rich tones of the high panelled wainscot is repeated in the finish of the handsome furniture, and the whole merges with wonderful charm into the old gold of the textile frieze. In one corner a small alcove affords a convenient place for the arrangement of the fireplace, and on either side built-in cupboards display behind their glassed-in doors a choice array of fine china. The room complete displays a harmony of arrangement that is most effective, and the same judicious selection of furniture is noted here as in the other apartments.

Beyond the dining-room is the china closet, equipped with the customary shelves and cupboards, and beyond is the service department, provided with all the up-to-date conveniences of modern housekeeping.

On the second floor are four chambers, two bath-rooms, a sewing-room and linen closet, each finished with a careful regard of the essentials that go to make an attractive whole. The cost complete was $8,000.

Construction Details of the Home

Window and Door Frames—Positions and Forms of Construction

By H. EDWARD WALKER

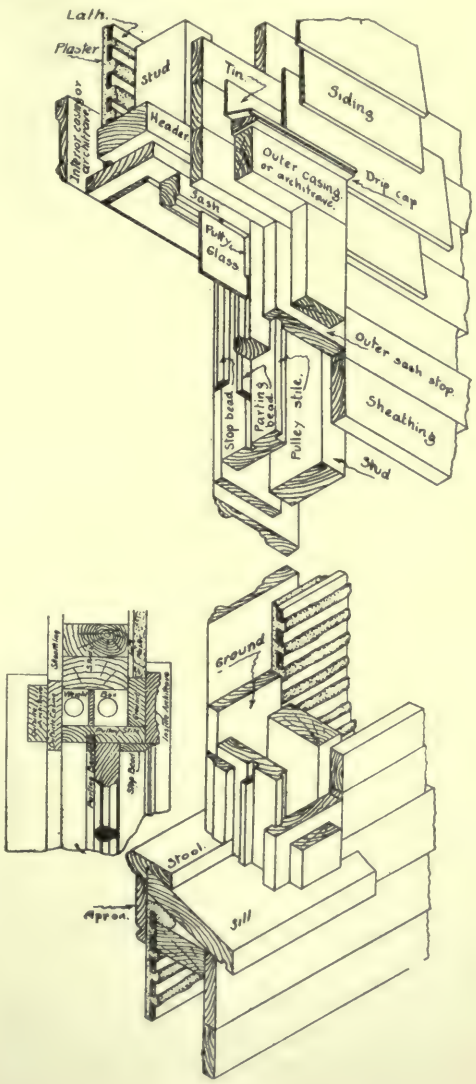
WINDOW and door frames should be correctly and carefully made, for it is here that cold finds its way into the house rather than through the walls.

Box Window Frames.

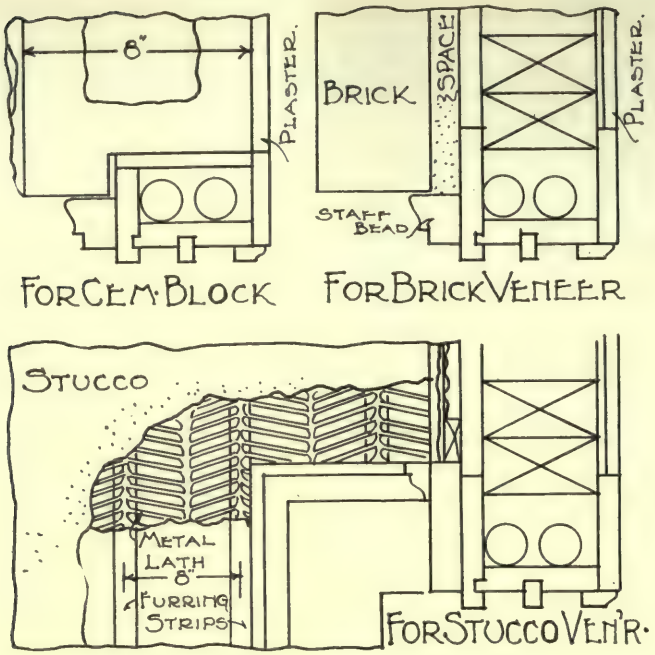
Figure 1, of frame construction, shows the sash, stops, frame, inner and outer casings and all the adjacent construction, such as plaster, studding, sheathing and siding, all carefully marked. Note the little tongue on the "pulley style," which fits into the "outer sash stop." This makes a tight joint, keeping the cold out of the weight box, the space between the "pulley style" and the first stud. It is often the absence of this tongue that makes a current of cold air noticeable at the pulleys. The "outer sash stop" should always be wide enough to nail to the first stud and the building paper which covers all the exterior sheathing should be carried well over it under the "outer casing." Note the "drip cap" with the protecting tin over it turned up under the siding.

The "ground" is shown forming the inner side of the weight box, extending over to the stud and making a tight joint with the plaster. The inside casing covers the "ground" and extends over on the plaster. The sheathing shown in the figure would in the best practice be placed diagonally.

Figure 2 shows the box frame adapted to walls built of various materials. For stucco veneer note that the only difference is that furring strips are nailed eight inches on centers directly to the sheathing over the building paper, on which to nail the metal lath. A small moulding must be placed about all outside casings, either door or window, to provide for the extra thickness of the stucco finishing coat.



(Fig. 1)



(Fig. 2)

For brick veneer, staff beads take the place of the outside casings, as shown. It is made to receive the storm sash or screen 1⅛ inches thick.

For cement blocks, solid brick or hollow tile construction, the staff bead is the same, but the back of the weight box is covered with a board to exclude mortar.

Basement Window Frames.

Figure 3 shows the construction of an ordinary plank basement window frame, rabbeted on the inside for a 1⅜ inch sash, hinged at top. The outside is rabbeted 1⅛ inches to receive the screen or storm sash. A small "staff bead" makes a finish against the masonry.

Two part windows requiring an area should not be used in modern work, owing to the unsightly condition of the area in a short time.

If desired, their construction will be identical with box frames already described. Additional light may be had by introducing extra single sash windows, all above grade.

Exterior Door Jambs.

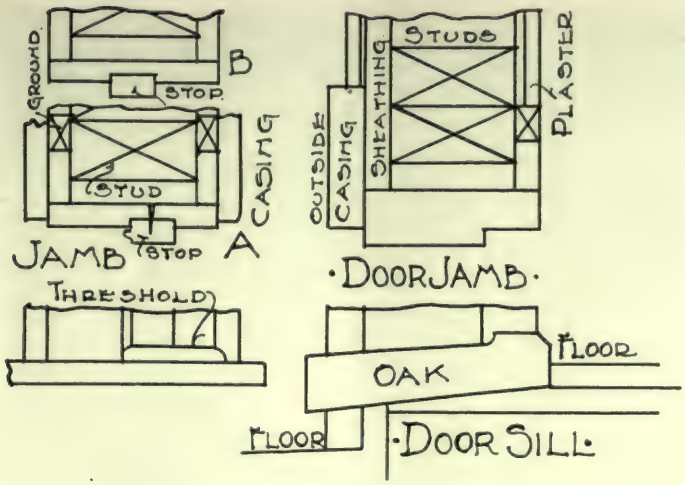
Figure 4 shows an outside door jamb at the right for frame construction. The inner edge of the jamb is rabbeted for the door, either 1¾ or 1⅜ inches. The rabbet for the screen and storm door is formed by the "outside casing," 1⅛ inches thick.

Double studs are carried around all openings as shown. The door sill is best of oak of the pattern indicated, with a pitch outward to shed moisture.

This jamb may be readily used in masonry by placing a staff bead same as that used for the window frames, instead of the outside casing. Some nail the staff bead directly on the casing which is made narrower, because when the masonry is built up around it, an absolutely air tight job is secured.

Interior Door Jambs.

At A, Figure 4, is shown the jamb of an ordinary interior door, with the "stop" glued and screwed in place and the casing on either side. Grounds are nailed to the



(Fig. 4)

stud before plastering to make a good nailing place for the finish. In many cases grounds are omitted and the stop is not plowed in, but simply nailed flat to the jamb. The threshold is shown in position, but is being used less every day for inside doors.

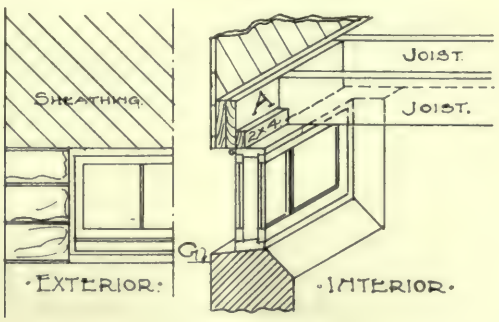
Pantry or Double Action Door Jambs.

The jamb of a pantry door to swing both ways is shown at B, Figure 4, and the stop from which the door is hung is indicated at the center. The finish is put on about the opening the same as for single action doors.

Casement and French Door Jambs.

In these jambs the construction does not differ from the ordinary exterior door jamb or that of the cellar window jamb, in section. The sash is usually about 1⅛ inches in thickness and the rabbet must correspond.

In some cases special hinges are used which are always accompanied by a drawing, showing what the construction of the frame must be.



(Fig. 3)



A SIMPLE USE OF PANEL DECORATION

Some Timely Ideas in Wall Decoration

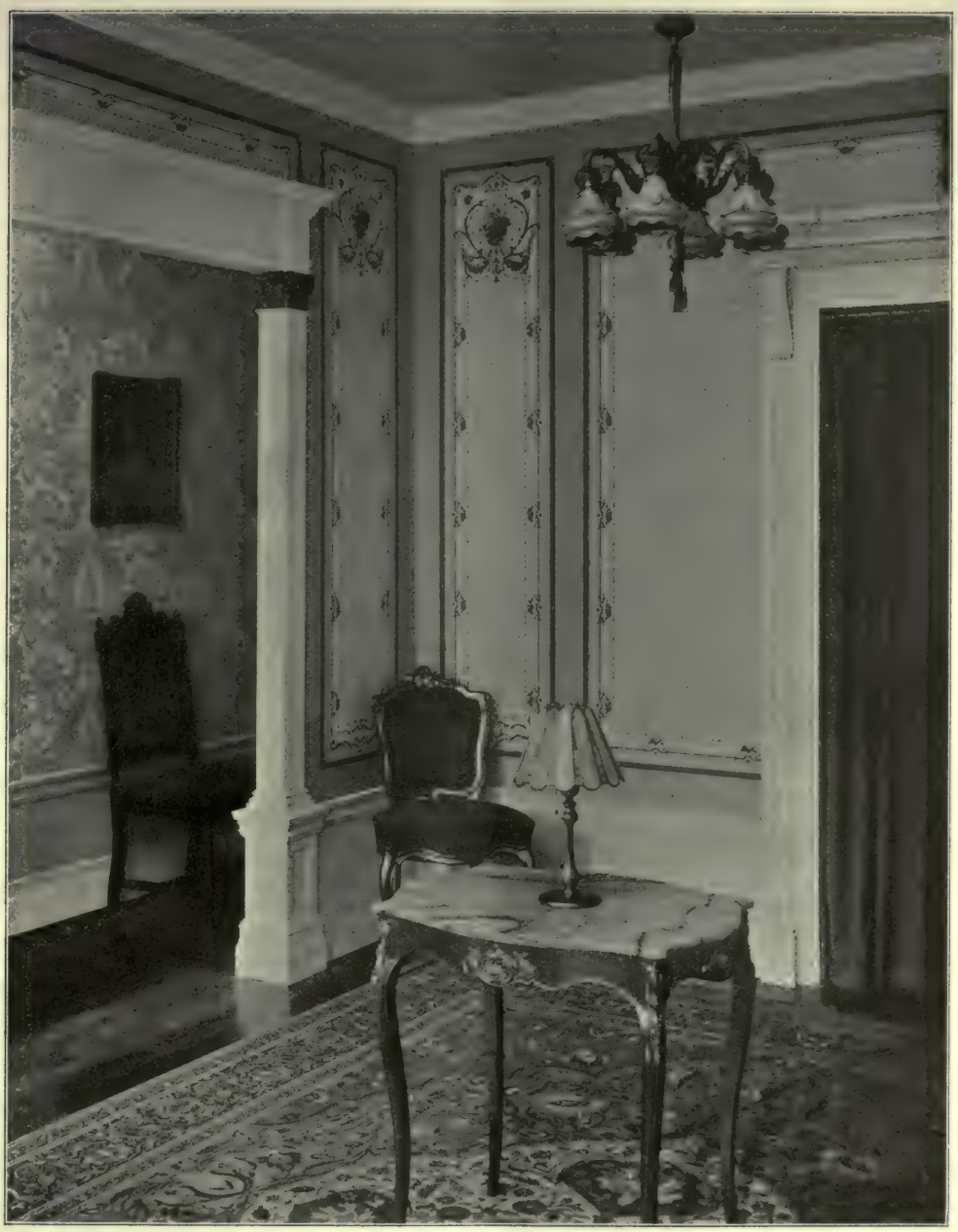
Pleasing Designs for the Present Season

By HENRIETTA P. KEITH

WHEN the home-builder has at last completed his house, when the masons, the brick and tile men, the floor finishers, the painters, and the plumbers have at length folded their kits, but not noiselessly stolen away—even then the home-builder's troubles are not over, for the "decorating" remains to be done. The question of how and what looms large before him.

Probably there are no more perplexing decisions to be made in our home-building experiences than the wall decorations involve.

In this article our decorator presents some illustrations of up-to-date styles in wall treatments, particularly panel and wainscot effects. Many people feel that an interior whose plastered surfaces are merely washed with a tint is cold and bare. And it is certainly true that a wall hanging, be it paper, grass cloth, or a textile fabric, imparts a sense of warmth and luxury that is lacking in the tinted or painted wall.



PANEL TREATMENT FOR PARLOR OR DRAWING ROOM

While there are certain styles of design which are in sympathy with the plain, severe wall, there are others which seem to demand a more elaborate treatment. This is especially true in the case of certain rooms, and special ideas in furniture.

The first illustration shows a simple use of panel decoration in a modest home. With the ribbon border and filling, panels of varying sizes may be formed, either with or without the head pieces or crown, or these may be introduced at any desired interval. As for instance, a crown ornament may be used to complete a narrow panel on each



WAINSCOT DESIGN FOR A HALL

side of a wide opening and in balanced corners, while the larger wall spaces have merely the ribbon border, with corners as shown in the illustration. The narrow panel over the arched opening is particularly happy. In this instance the plain paper used for the background is a gray, slightly deeper in tone than the gray and white invisible stripe "filling," while the crown's and twisted ribbon border introduce the softest of rose and green shades, delicate as a pastel.

The next illustration showing method of treating a parlor or drawing room in a handsome house built, for instance, in the colonial style, meets this demand. Such rooms, in a true colonial interior, were usually furnished in mahogany. The woodwork, ivory with quite elaborate detail of cornice, over-mantel, pilatsers, and paneled wood dado. The French style of paneled wall spaces, the plain diapered pattern of the centers outlined by a narrow floral border which terminates in an ornamental head or "crown," is peculiarly in harmony with such an atmosphere and indeed in part creates it. While this decoration may seem complicated, it is in reality very simple, as the three parts composing the scheme are easily understood and applied. Such a decoration may be carried out in different colorings, but in the example given the ground of the center is an oyster white diapered with light gray. The delicate medallions of the narrow banding connect with the crowns at the top of the nar-



SHOWING ALL-OVER WALL AND DADO

row panels and form one continuous design, while the larger spaces are merely outlined by the border. The border and crowns are in rather vivid coloring like the illuminated capitals of old text, but the whole effect is very delicate. The whole panel is laid upon a darker gray wall, which may be a plain cartridge paper or calcimine tint, and three-quarter inch wide stripe in a grayish brown again defines the paneling. This is laid on with the decorator's brush. This illustration also shows a quaint Colonial paper used in the hall from which this parlor opens, which offers a good contrasting treatment while at the same time keeping the old time Colonial atmosphere.

In the third interior a very useful paper is shown supplying as it does, material for a "cut-out" head ornament to be used within the paneled spaces, and a classic border for outlining the same. The stole-drop decoration is also used most effectively in the stairway treatment, or it may be reversed and hung pendant from the hall ceiling, along the staircase wall. The coloring of the design is the dull green of jade, with soft dull rose, and the background is an Eltonbury silk fibre in an all over invis-

ible pattern and soft pinkish gray-brown in tone.

The cost of these decorations is moderate. The paper used for the paneling in the first two illustrations sells for $1.00 a roll, the crowns at 40 cents apiece and the banding from 15 to 20 cents the yard.

The "stole" design costs about $1.25 for the silk fibre ground and as much more for the design, by the roll.

The fourth interior shows an unobtrusive diaper pattern in dull but not dark greenish blue, which is brought together with the dado by a "binder" taken from the dado pattern below. This binder is used at the top and bottom of the upper wall. The center panel space of the dado are like the upper wall, and as the illuminated dado pattern is in rich and strong coloring the whole effect is at once dignified yet rich in color tone. Such a treatment would be very handsome in a well lighted dining room where richness of warmth were desired or in a den or library.

NOTE: We are indebted to the courtesy of the Wall Paper News, for the illustrations used in this article, which reproduce some of the celebrated "Birge" papers.

Growing Sweet Peas

Simple Instructions Which Will Insure Success

By BESSIE L. PUTNAM

IT would be difficult to find a more acceptable annual for all purposes than the sweet pea. It quickly converts an unsightly spot into a bower of beauty. It blooms constantly throughout the season, the fragrant blossoms having the long, slender stems so much prized in the cut flower. The colors are so varied that each may find a favorite shade. The blossoms are showy yet delicate, appropriate for all occasions.

Sweet peas should be planted as soon as the ground can be worked. In most seed planting we gain time by waiting for good weather. But not with this. Get the plants nicely started before warm weather comes.

Dig a trench a foot deep and fill it half full of decayed stable manure. Then put in an inch of soil, scatter the peas a couple of inches apart, and cover with an inch of soil, pressing down firmly. After the plants are a foot high gradually fill the trench with soil. This deep planting saves from suffering in drought, while the rich bed of fertilizer beneath supplies the necessary food as the roots are prepared to assimilate it.

Fix the trellis at time of planting or filling the trench, as convenient. Wire netting is the best material, though brush or even strings may be substituted.

Be chary of the watering can, but when used, use it thoroughly. The hoe is a better protection against drought. Keep the blossoms closely picked, not allowing seed pods to form, if you wish an uninterrupted succession of bloom. Liquid fertilizer, once a week, will do much toward securing a luxuriant growth, but it should not be applied without first rendering the soil moist, if not already in suitable condition. While a mixed packet will insure a fine collection, the very choicest specimens are insured from named sorts. If but three varieties are desired, Dorothy Eckford, pure white, Lady Grisel Hamilton, with large lavender flowers, and Lovely, a soft shade of pink, make a beautiful combination.



SWEET PEA BLOSSOMS

Some florists send out assorted shades of any color desired, these not only making a charming combination during growth but furnishing a harmonizing collection of cut flowers.

When arranging a mixed collection of cut flowers, most pleasing results are obtained by combining all the different colors, and a reliable dealer is able to supply seeds which are sure to please.



A PLEASING PROSPECT FOR THE MONTHS TO COME

April in the Vegetable Garden

In the Beginning, What to Plant and How

By CLAUDE H. MILLER

BEFORE planting any seeds in the garden, first make a planting plan on paper. Measure off the location of the rows and stake them out on the ground. Pieces of shingle make good stakes for this purpose and may be written on with a soft pencil such as a carpenter uses. The records so written are only temporary and will have no value after the vegetables appear and speak for themselves. Keep a permanent record of your varieties for comparison and future reference. This can be done on your planting plan. The average book for garden records is of little value. A blank book in which to enter the interesting facts is more practicable. It is well to keep a record of dates for a number of years all on one page. For example:

String Beans.

Planted.	First Crop.	Variety.
1906 May 26	Aug. 4	Stringless
1907 May 8	July 30	Green Pod
1909 June 3	Aug. 10	

Seed planted at a depth of four times their diameter usually succeed and, whenever in doubt, this is a safe rule to follow, but the following depths are always safe:

One-half inch—cabbage, carrots, lettuce, parsley, radishes and tomatoes.

One inch—beets and the cucumber family.

Two inches—beans, peas and corn.

It is also important to know how far apart the rows should be planted, and this little table may be of service:

Two feet—lettuce, onions, parsley, bush beans and beets.

Three feet—cabage, potatoes and peas.

Four feet—corn, pole beans and bush squash.

Five feet—cucumbers and tomatoes.

Six feet—melons and vine squash.

In the row, give the plants plenty of

room. It is unwise to crowd them, even though it may appear that they do not resent it. Sow the seeds thickly if you want to, but when the seedlings appear thin to:

Two inches—radishes.

Four inches—onions and bush beans.

Six inches—beets, carrots, spinach and parsley.

Twelve inches—lettuce.

Twenty-four inches—bush limas and eggplants.

Three plants to a hill—cucumbers, squash and corn.

Peas—sprinkle thickly in double rows.

This record is chiefly valuable in helping us to remember when we planted our garden and when we gathered our first crop. Every gardener tries to have early vegetables. In my neighborhood, to be the first man to have green corn for dinner from the garden is equivalent to winning the English Derby.

If we have made the mistake of planting too early, the result will be yellow, spindly looking plants. As a rule it is better to replant, but whether this is so or not is where the judgment of a gardener comes in.

planting gardens, which is as follows:—

Keep in mind the universal rule for Seeds may be divided into two classes, according to the temperatures at which they will germinate or sprout readily and can be safely planted. The blossoming time of fruit trees is a more certain guide than any arbitrary calendar date.

Hardy or tough seeds: Beets, carrots, cabbage, cauliflower, endive, kale, lettuce, parsley, parsnips, onions, peas, radishes, turnips and spinach.

These will germinate or sprout at an average temperature of 45 degrees in the shade, and may be planted when the peach and plum trees are in blossom, or even as early in the spring as the ground can be prepared.

Tender seeds: Corn, eggplant, beans, melon, okra, squash, cucumber, pumpkin, tomato and pepper. Do not plant these until the apple trees blossom, when the average temperature is sixty degrees.

It is well to change the location of the various crops in a garden from year to year. Garden crops naturally fall into two classes: the small things that require a carefully prepared and fine seed bed, such as lettuce and onion seed, and the rank, coarse growers, like corn and potatoes. It is absolutely necessary to rake over the ground, remove all sticks, rubbish and coarse manure for the former. Such a proceeding would be a waste of time for corn or potatoes, and, as there is plenty of necessary work to do in a garden, we must not do any unnecessary things.

In planting for succession, the amateur will find the following table of assistance. It gives the average time required for maturing of crop from time of sowing seed:

Radishes (summer)	3 weeks
Bush strong beans	6 weeks
Peas	8 weeks
Beets, early corn, cucumbers	9 weeks
Spinach, squash, turnips	9 weeks
Early carrots, pole beans	10 weeks
Lettuce, potatoes	11 weeks
Parsley, melons, late corn	13 weeks
Early cabbage, pumpkins	15 weeks
Late carrots, winter squash	15 weeks
Late cabbage, celery	18 weeks
Eggplants, onions (seed), etc.	18 weeks
Tomatoes	18 weeks
Peppers	20 weeks

Thinning contributes in greater measure to a garden's success than the average amateur realizes. Even when a person knows how far apart the plants should stand, he oftentimes feels reluctant to pull up the surplus and unnecessary seedlings, and this reluctance is at the bottom of a great deal of garden failures.

A Dollar's Worth of Seeds

By MILLER PURVIS

LAST spring we found it desirable to leave our city home and go to a rather unbeautiful country village to live for a year. We were lucky enough to find a plain, new house to live in, but it lacked all the elements of beauty. There was no grass in the dooryard, no trees, no shrubbery, nothing but a box of a house on a new street.

With a dollar's worth of seeds and a little time after office hours we covered the house with vines, shading front and back porches and windows, filled the borders with a riotous growth of bloom and perfume and made it a very pleasant place to live.

The lot on which the house stands is sixty feet wide and one hundred and twenty-five deep. Ten feet back of the house was a wide bed dug and borders were dug around the house, close to the walls, a walk determining the width on the south side.

On the east line of the lot we dug a trench a foot wide and eight inches deep. The bottom of this trench was dug and made fine and a little fertilizer added, although the soil is very rich, naturally. In the bottom of this trench mixed sweet pea seeds were planted and covered two inches deep, as early as we could work the ground. As the vines grew, the rich soil dug out of the trench was drawn around them until the trench was full, thus giving the peas a deep, cool place for their roots to grow in. The first sweet peas were cut about July 1, and after that we had blossoms until the frost came. We gave away thousands of blossoms, and as soon as one began to droop it was cut off the vine, so as to prevent seed from forming and force further bloom. This row of sweet peas was worth all the whole place cost in the beautiful flowers it gave us.

Around the front porch we planted Japanese morning glories, at the window nearest the street the same, and at the windows further back Chinese kudzu vines, Chinese bottle gourds, scarlet and purple runner beans and cypress vine. From late August until frost we had great morning glory bells, in all the various shades, many of the flowers prettily edged and marked with white. The Japanese morning glory is twice as large as the common kind. The kudzu vine, with its wide, three-lobed leaves, was new to us. It grew slowly at first, but presently it started and soon reached the eaves and doubled back. Since we got the seeds we find that this vine lives over, the tops dying down and coming on again in the spring. The roots are edible and the Chinese eat them.

In the beds and borders we planted portulacca, phlox, balsams, petunias, asters poppies, zinnias and nasturtiums. Of all these we bought the finest varieties of mixed seeds, so as to have what we were working for—a blaze of color to set off the dull surroundings, and we got it in profusion.

On the west line of the lot, and back of the house, we planted mammoth Russian sunflowers, thickly on the west, to cut off a not very pretty view, and three feet apart back of the house, to divide the yard from the garden. We always plant plenty of seed and thin later after the plants get started. We moved in too late to start seeds in a hot bed, so just put them where they grew. By midsummer we had people coming to see our flowers and wondering how we could raise them so perfectly. All the work we ever did on them was done after office hours, and then we only put in a few minutes at any one time.

Ideas for An Aviary and Aquarium

Interesting Features of Moderate Cost

By MABEL PUTNAM CHILSON

CHARMING accessories to a city house may be added at nominal expense, for the keeping of small pets. Reference is made particularly to birds and gold fish.

Find a window in your house, which can be spared as a setting for canaries; have the glass taken out of the window frames, inserting ¼ inch wire mesh; have a carpenter build on the outside either quadrangular or a semi-curcular bird-house opening into the room. The attachment must, of course, be planned in keeping with the contour of the dwelling. Have an extra floor or tray made to slide into the room, through the window. This tray can be removed often for cleaning. A good plan is to place a few shovelfuls of sod on the movable tray, planting lawn grass and nasturtium seed. Then watch your birds and see how happy they will be. A wall-vase filled with branches of huckleberry (which can be purchased at a florists') will give the birds a place to roost and afford them much pleasure besides. In the breeding season (from February till June) they will mate and nest and raise their young in this enclosure. Of course they must be encouraged with bits of string, cotton, straw, etc., but they will refuse a made nest, if given a chance to build their own.

Whatever you do, let your birds take care of themselves. Don't fuss over them. They will thrive if not over-heated and if given plenty of good air from a nearby window; also if given a generous bath daily. Keep fresh water and mixed bird-seed in the cage, together with cuttle bone and a little river sand. When the young ones hatch out, place a dish of hard-boiled egg and cracker crumbs in the cage. (A good plan is to crush these together with a fork, scattering in a bit of cayenne pepper.) Lettuce and chickweed are relished once or twice a week.

If one does not care to breed canaries, but prefers a variety of birds, he may introduce a Japanese sparrow, a bull finch, some black-hooded nuns, a pair of canaries, and some little strawberry finches, into the cage. These combine well and will not fight. Otherwise, however, during the breeding season the male canaries are apt to quarrel over some particular "mother-bird," so it is well to keep but one pair of each kind in the cage at that time. "Birds in their little nest agree" is somewhat a fairy tale.

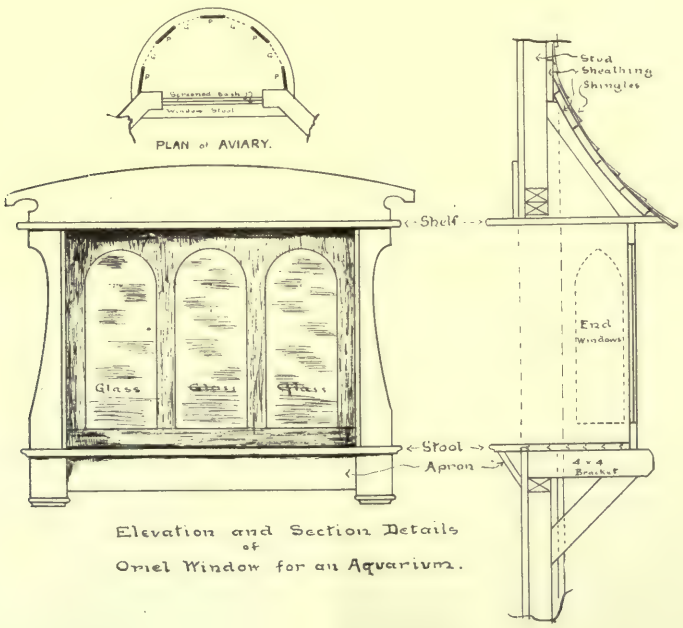
Another accessory to the city home, which children always enjoy, is a fish-tank. A north exposure is best for the purpose. A stand or window-seat may be utilized



THE ORIEL WINDOW AT SIDE

for the tank's support; but a better way is to have a little projection made beyond the wall of the house. Of course no screen is necessary here, except over the top of the tank, to keep your cat from fishing—if you have a cat. The principal idea in this suggestion is to get a place full of light and also where drainage can be effected. If your tank is constructed out of wood, a gimlet hole in the bottom of the tank may stand just over another hole in the floor of the little window projection. A cork, inserted in the fish-tank bottom, from above —may be removed once or twice a week to allow the water to flow out. Often a tank becomes well balanced with animal and vegetable matter, when it is not so necessary to empty it often; but until such a time it is first necessary for the health of the fish, as well as for that of the householders, to keep the water fresh. Have a pane of opaque glass just opposite the front of the tank, so that you may be enabled to see the little creatures swimming about. They must have a rocky hiding place, for they do not care always to be in the light. They will enjoy having tad poles in the tank, as well as growing grasses and other water plants. A bit of prepared fish-food about three times a week, or a little scraping of raw beef, will keep them in fine shape. They dearly love mosquitoes, although the latter can hardly be encouraged to live, just for the fishes' accommodation.

The most successful aquarium of which I know, is made of concrete, with pipe connections for water, and a tiny fountain. This tank weighs 450 pounds when filled, and stands in the little gothic window space illustrated herewith.



Elevation and Section Details of Oriel Window for an Aquarium.

A Handsome Five-Room Bungalow for $2,100

By CHARLES ALMA BYERS

(Photographs by the Author)



THE FRONT WITH ITS UNIQUE AND INTERESTING PORCH
—Designed by T. G. Andeson

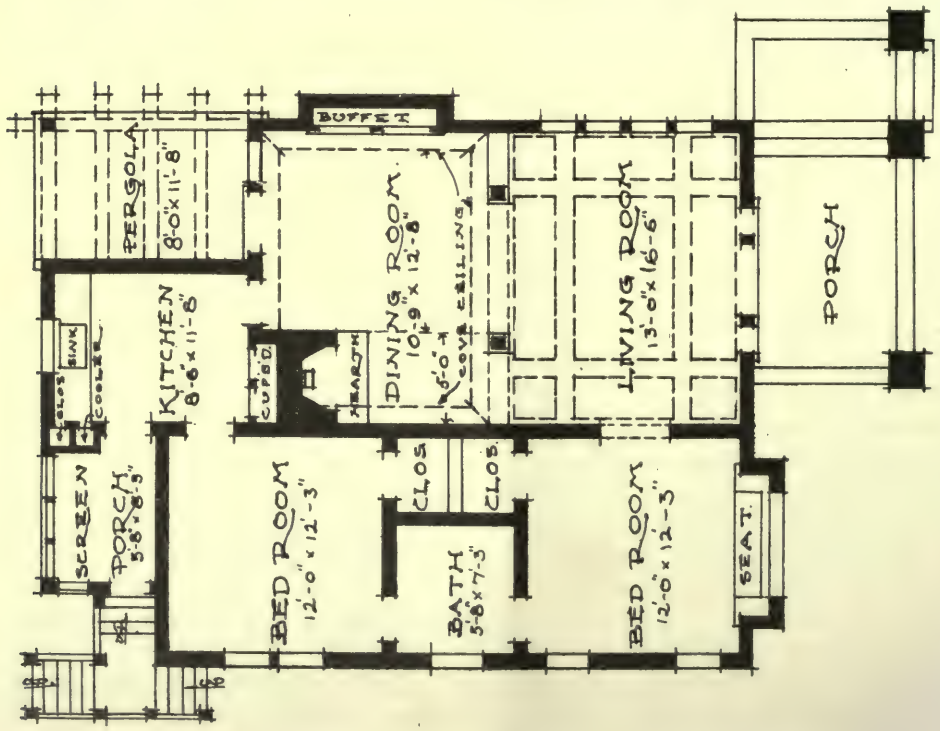
THE handsome five-room bungalow illustrated by the accompanying photographs and floor plan was built in Los Angeles, California, for $2,100. It is located on a lot 40x120 feet, and has a frontage of 29 feet and a depth of 35 feet. Its woodwork consists of California redwood and Oregon pine, and its masonry work, embracing porch parapet and pillars and chimney, is of brick, while the foundation, the walks and the floor of the front porch are of dark-colored cement. The color scheme of the woodwork consists of a rich brown stain, with the trim done in black.

There is a general external appearance of simplicity that gives the house unusual charm. It possesses a front and a rear porch, the latter screened, and a small pergola at one of the rear corners. The roof lines are gracefully irregular, and the timbers of the pergola and porches are mildly massive, square sawed and undressed.

The floor arrangement deserves careful study, particular in regard to the location of the one fireplace, which occupies a sort of alcove connected with both the living-room and dining room. The rooms, besides this alcove, consist of living room, dining room, kitchen, two bed rooms and a bath room. The living room contains a built-in book case, the dining room a built-in buffet, the front bed room a combination window seat and clothes chest, and the kitchen a spacious built-in cupboard and drawer room and draught cooler. The woodwork of the



A PEEK INTO THE ALCOVE, SHOWING FIREPLACE



FLOOR PLAN.

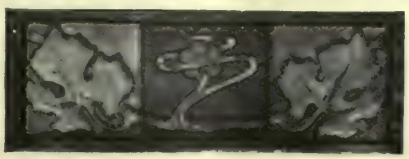


THE DINING ROOM, SHOWING BUFFET AND DOORS TO PERGOLA

living room and dining room is of Oregon pine treated to resemble Flemish oak, while that of the kitchen, the two bed rooms and the bath room is enameled white. The ceiling of the living room is beamed, while those of the dining room and front bed room are coved. The walls of these three rooms are papered, those of the living room being covered with a pattern done in dull browns, blues and greens, and those of the front bed room with a pattern designed after a rose covered trellis. French doors lead from the living room to the front porch and from the dining room to the rear pergola.

Total Cost of This Bungalow
As Built in California.

Lumber	$ 580
Sash and doors	180
Hardwood floors	130
Carpentry	320
Masonry and plastering	380
Plumbing	220
Hardware	50
Painting and papering	185
Electric work	55
Total	$2,100





—Courtesy of The Rookwood Pottery Co.

FAIENCE MANTEL FOR A LIVING ROOM—A SPECIAL DESIGN EXECUTED IN COLORED MAT GLAZES

Designs for the Home-Builder

THE homes being built this spring are specially pleasing in character. To the experienced eye even the open frame, now in evidence on every side, promises well for the completed building.

To no class is this true to a greater extent than in the small inexpensive home. Simple beauty costs no more than ugliness and the public demand for artistic lines is having its effect upon our residence architecture. Among the designs for this month will be found homes of unusual interest and the builder is urged to take advantage of the splendid weather of early spring to make good progress with his home. Prices will be higher later and the mills overrun with work.

Design B 231.

This "L" shaped house is designed to take advantage of every ray of sunlight and is eminently suited to a corner lot. The living room, dining room and two bedrooms have light on three sides, while the kitchen and bedroom over have light on two sides.

The stair reaches from basement to attic and is in combination from first floor to landing, with a grade door under same. There is a coat closet from hall, a fireplace in living room and a china cabinet in dining room. The kitchen and pantry are ample. In the basement is laundry and hot water heating plant. Size 36 by 40 feet. Built of brick for first story and cement stucco above. The architect places a minimum cost of $4,500 upon this house.

Design B 232.

This house finished in stucco with a moderate use of wood trim externally, with a slate roof. The living room and dining room have each beamed ceiling and a fireplace. A rear porch affords an outdoor table space, opening from the dining room. Front and rear stairs lead to the second story, which contains four chambers and two bathrooms. All floors are of southern pine and the trim is of cypress stained. There is a good attic. The basement has a cement floor and contains hot water heating plant with fuel bin, a well appointed laundry, vegetable storage room and general storage space. Size 29 feet by 37 feet 8 in., without projections. It is estimated to cost $5,500, but a saving might be made by the omission of one bathroom and other features not absolutely necessary.

Design B 233.

This is an attractive little cottage home, on a beautiful lot. Cement, brick, shingles, and stucco are successfully combined to produce a picturesque exterior. The living and dining rooms have beamed ceilings, there is a pleasing brick mantel and quaint seats on either side, and the finish is of oak. The kitchen portion is in brick with maple floor. On the second floor are four good chambers and a bathroom finished in white enamel. A sleeping porch is reached from the hall at the rear. Floors of birch. The basement contains a hot water heating plant, laundry and vegetable cellar, with storage space, all with cement floors. Size 26 feet by 28 feet, without porches. The owner states the cost at $4,000.

Design B 234.

This house has a rather unusual plan because the rear overlooks a beautiful lake and boulevard. To make the most of this the sunporch, sleeping porch and one chamber were placed at the rear and the bathroom located in front. Except birch in kitchen with maple floor, the first story finish and floors are of oak. The second story is in white enamel with birch floors. Beam ceiling in living and dining rooms. Two fireplaces. Hot water heat, fuel bins, laundry and storage space. There is a good attic. The exterior is of siding and stucco with half-timber effect. Size 32 feet by 35 feet 6 inches. The architect's estimate is $5,500.

Design B 235.

This home is 26 feet by 28 feet, without projections, and the architect states that without heating and plumbing it can be built for $3,200. Although of the bungalow type of story and a half cottage, all the

rooms are of full height, 9 feet on the first story and 8 feet on the second.

The dining room has a beamed ceiling and paneled wainscoting. The finish would be birch or red oak for the first story and pine to paint on the second, with birch floors.

A complete laundry, vegetable cellar and heating plant may be provided in the basement with ample room for storage. There is a small attic space.

Design B 236.

Simplicity has a charm all its own and this design exemplifies it. Dash coated with cement, the vines find a ready hold for their ascent. The living and dining room give a large open effect and the stair, fireplace, dresser and seat are pleasing features. The kitchen is most convenient. There are two chambers, a bathroom, numerous closets and a balcony on the second floor. The finish is of birch throughout, white painted on the second story and stained on the first. In the basement is the laundry and hot air furnace. Size 24 feet by 28 feet. The architect's statement of cost is $2,500.

Design B 237.

This cottage home is pleasing, though simple. It is 30 feet wide by 40 feet deep, and contains seven good rooms. The lower story is plastered in cement with shingles above in the gables. It has front and back stairs, and the finish is of birch, except in chambers and bathroom, which are white enamel. The size upon the ground makes it cost more than a full two-story house of equal number of rooms. With fireplace, hot water heat and plumbing the architect says the cost was $3,800.

Design B 238.

This attractive little bungalow design is built on simple lines and the floor plan is very conveniently arranged. The dining room and living room are adjacent. There are two chambers, maid's room, kitchen and bath with linen closet and wardrobes. The exterior is covered with "shakes" to receive a coat of stain. There is basement under the rear portion in which the furnace is located. The finish and floors are of Georgia pine throughout of natural finish.

It is 27 feet by 37 feet long exclusive of porch and the story is 9 feet. The estimated cost including heating and plumbing is $2,500.

Design B 239.

This pretty seven-room cottage is 40 feet in width and 48 feet in depth, with a large corner piazza at the entrance 16 feet square. There are five conveniently arranged rooms on the first floor, a central staircase leading up to the second floor, which is arranged with two rooms and large storage space.

The exterior treatment is with low walls, using 10-foot studding, and low-pitched, broad-spreading roof, with wide, projected cornices, typical of the Western bungalows. The architect's estimated cost, exclusive of heating and plumbing, is $3,500. The outside is designed to be finished in wide drop siding of Washington fir, pine or cedar and stained a rich brown color, leaving the trimmings white.

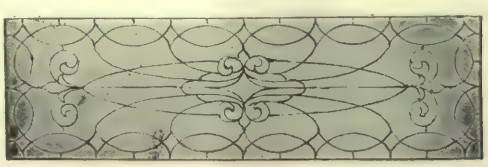
Design B 240.

A model design of seven rooms and bath. The exterior treatment of this design is rather unusual in that 12-inch siding is intended up to first story window sills, with shingles above and a three-foot panel frieze.

The basement extends under the entire house, in which provision has been made for hot air heating apparatus, laundry with wash trays, vegetable room, fuel bins, etc. Cased openings are intended between dining room and living room, and living room and library. The combination stairway in this design effects considerable saving in space.

The finish to be of pine or other soft woods, such as poplar or cypress.

Width, 30 feet; depth, 22 feet; height of basement, 7 feet; first story, 9 feet 5 inches; second story, 8 feet 3 inches. Estimated cost including heating and plumbing, $3,500.

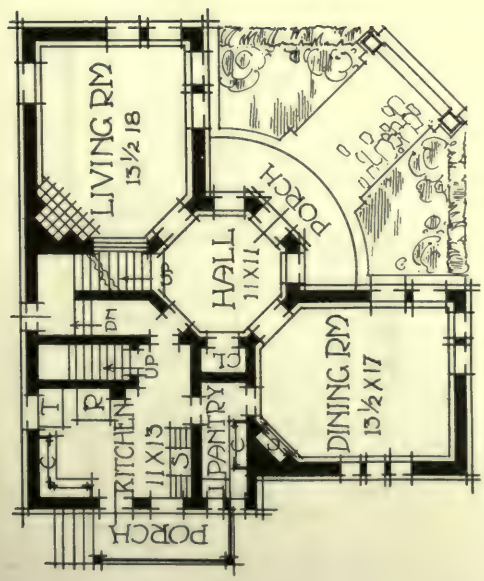


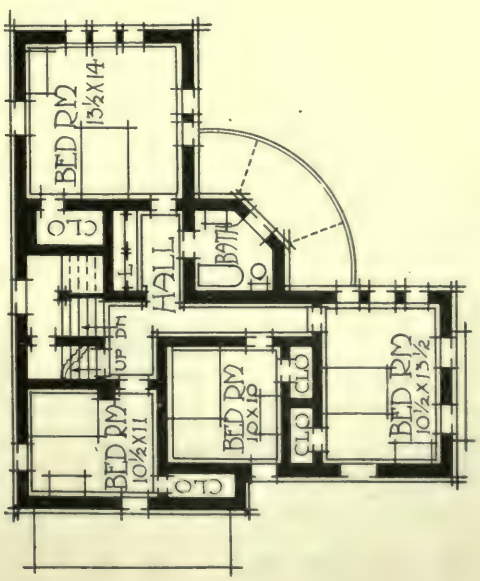


—John Henry Newson, Architect

An "L" Shaped House for a Corner Lot

DESIGN B 231



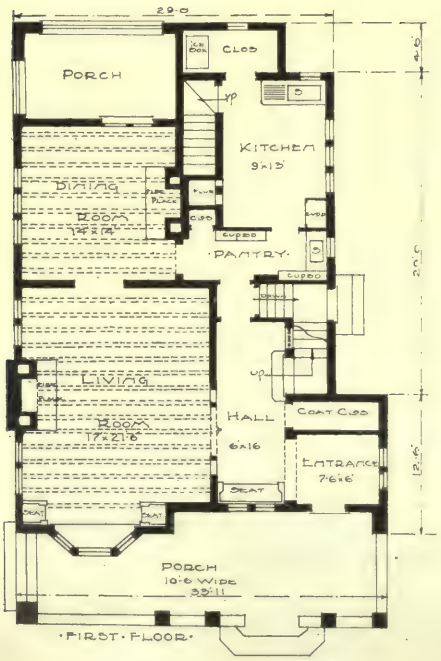




—Squires & Wynkoop, Architects

A Cement Exterior with Slate Roof

DESIGN B 232



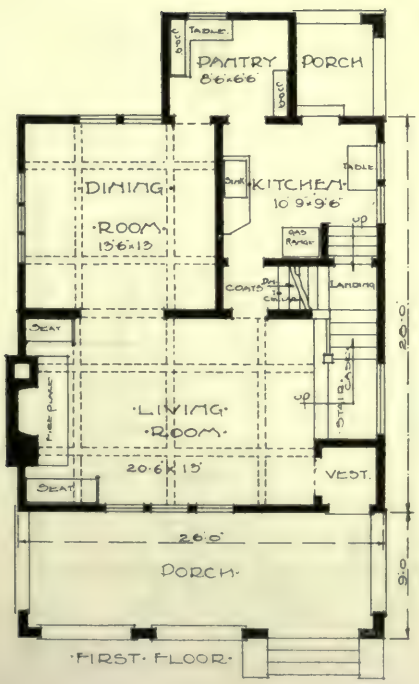


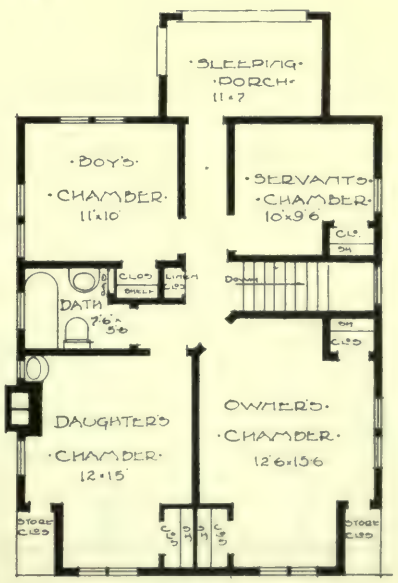


—Carl A. Gage, Architect

A Charming Cottage with Twin Dormers

DESIGN B 233



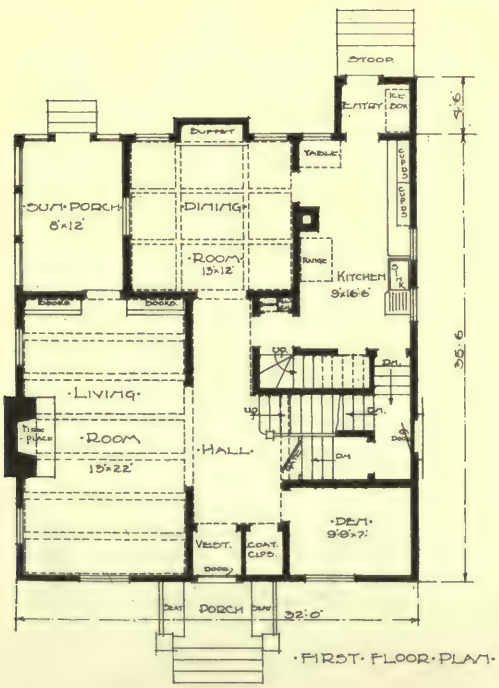


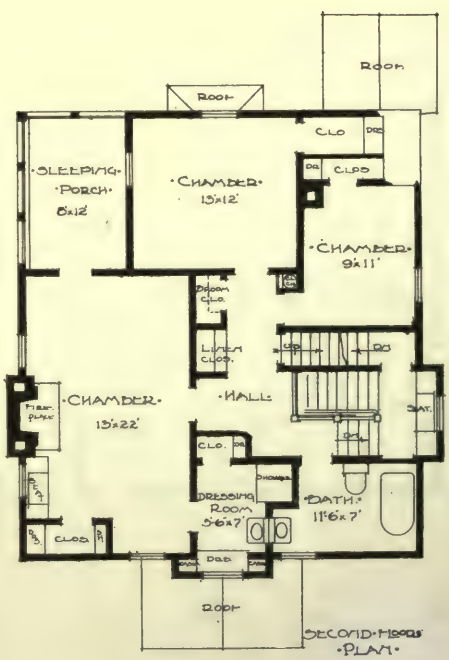


—Downs & Eads, Architects

A Simple English Effect

DESIGN B 234



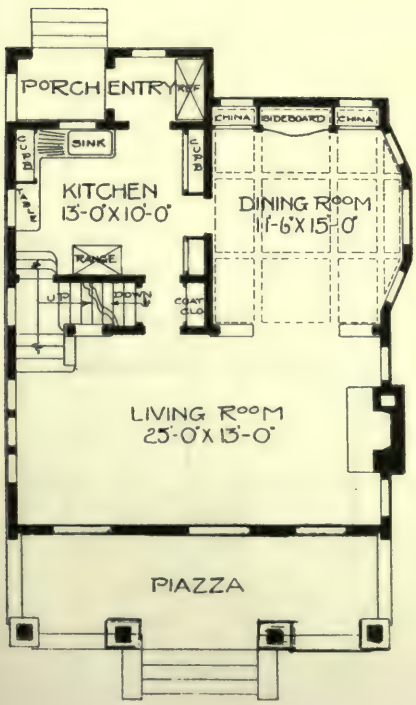


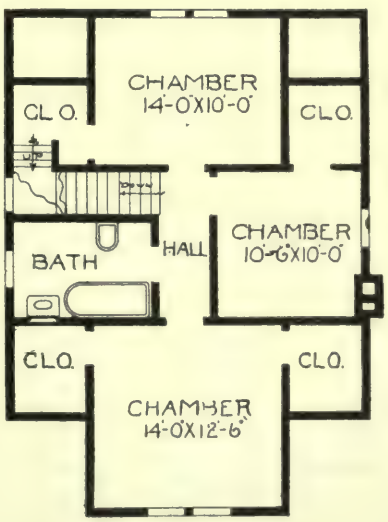


—Glen L. Saxton, Architect

A Good Cottage Exterior

DESIGN B 235



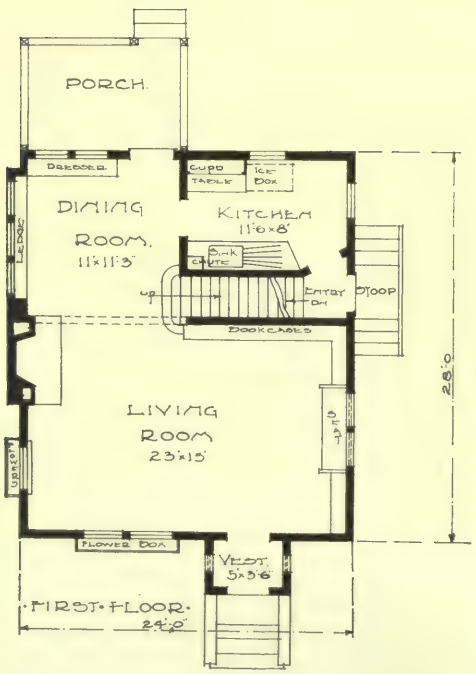


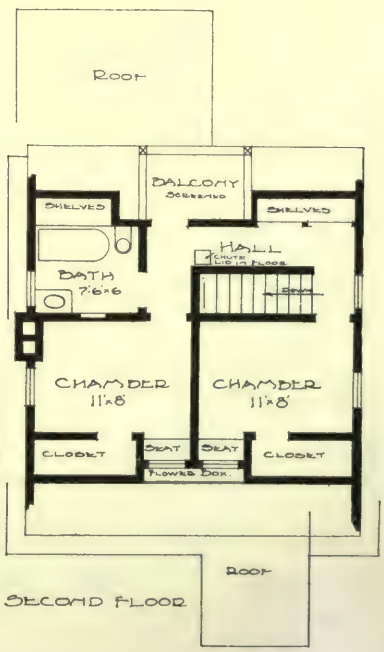


—A. R. Van Dyck, Architect

A Simple Little Cement Cottage

DESIGN B 236



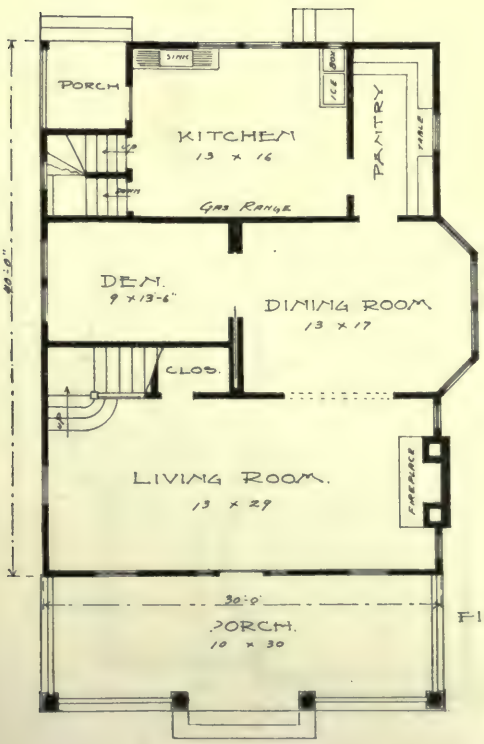




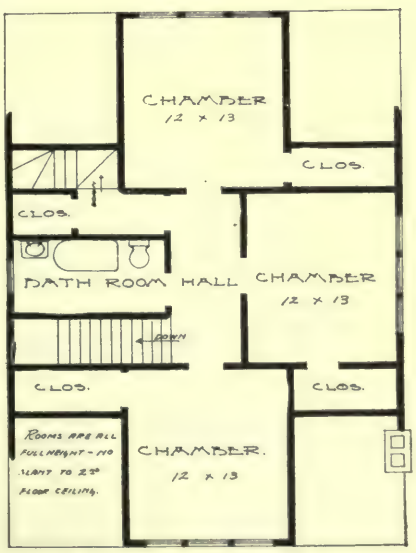
—Arthur C. Clausen, Architect

A Cozy Two-Story Bungalow Effect

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FIRST · FLOOR

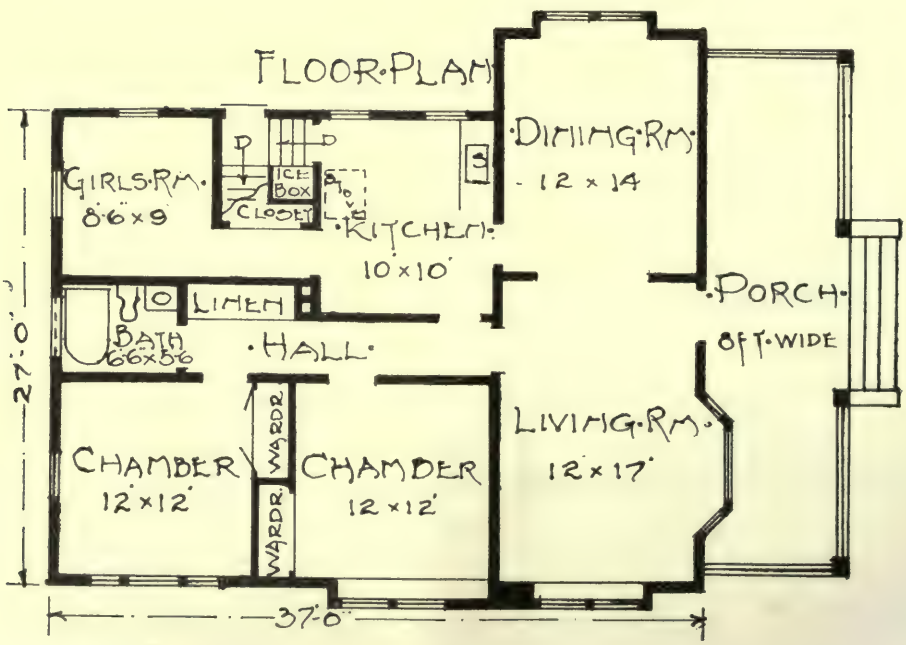


SECOND · FLOOR



A Bungalow with a Pergola

DESIGN B 238

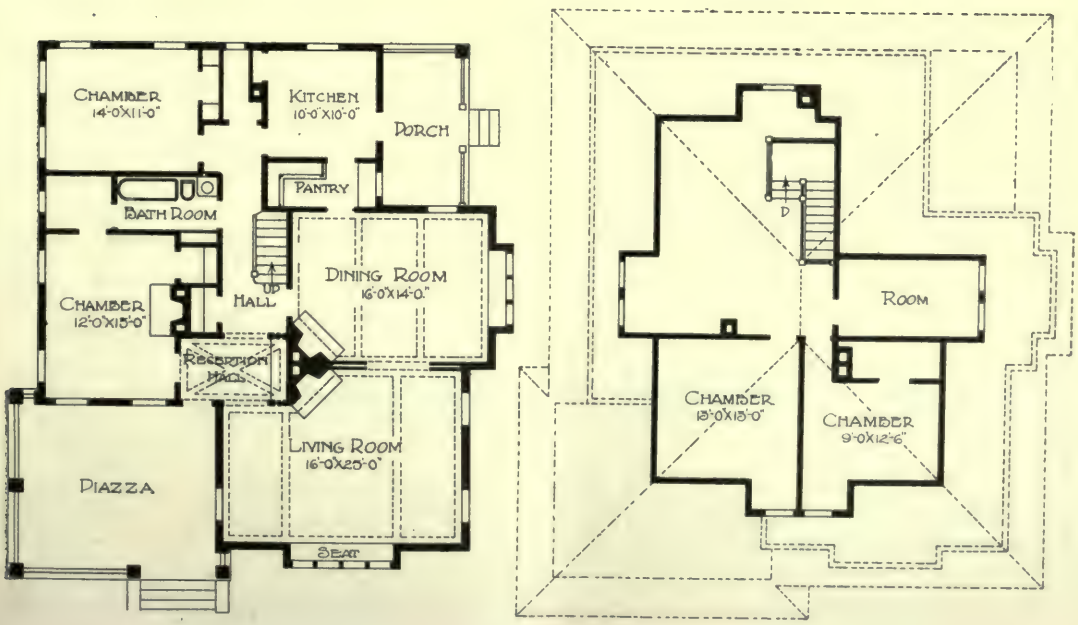




—Chas. S. Sedgwick, Architect

A Bungalow on Simple Lines

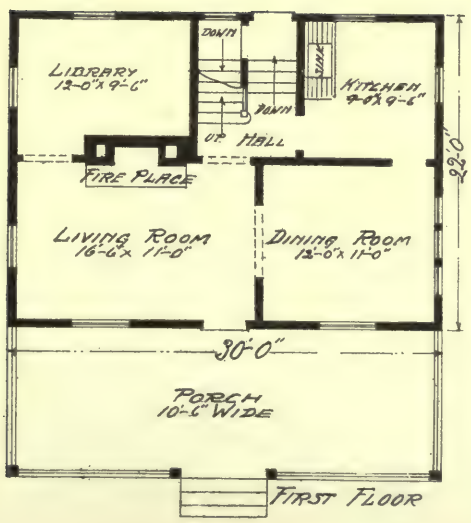
DESIGN B 239

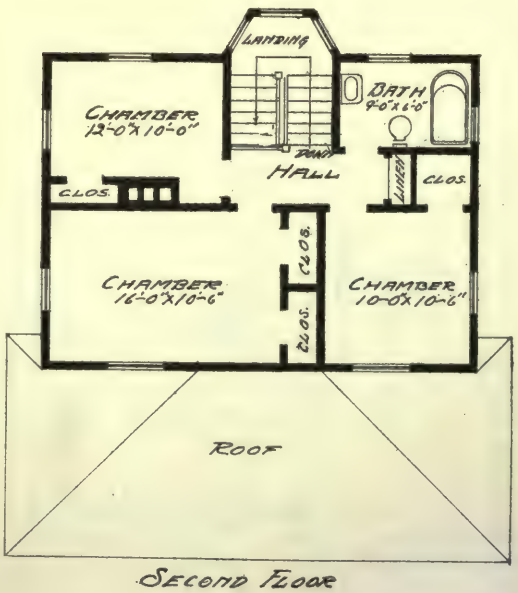




A Design of Pleasing Symmetry

DESIGN B 240







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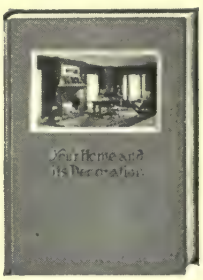
It is always difficult to select pleasing color combinations from color cards. It is also difficult to select the paint, varnish or stain best suited to the surface it is to cover.

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Adaptations.

MOST successful decoration is a study in adaptation. One finds few good effects at first hand. And some very interesting results come from changing the association of things.

Take for instance the sort of construction called variously Craftsman, or Mission. It is a matter of plain outlines, smooth surfaces, much panelling, a great emphasis laid upon construction. It is generally developed in dark wood and low tones of color, and is at its best in a summer house, with unlimited sunshine. But there is no reason why the principles underlying it should not be applied to an entirely different use and to light and bright schemes of color.

Take the favorite panelled wainscot with niches here and there, commonly occupied by bits of copper or dull green or brown pottery. It would be equally effective carried out in soft wood, painted white, with a chintz paper above it, with bright china in the niches, and with a light rose or green French toile for upholstery, instead of leather or canvas.

Built in cupboards below groups of casement windows may as well be painted gray for a bedroom, as stained dark brown or green. A Morris chair or davenport is just as sincere a piece of cabinet work with tapestry cushions as with leather. Mortise and tenon construction is not restricted to oak, but may be applied to mahogany or birch, or even to plain pine.

Harmonizing Golden Oak.

Golden oak has lost its vogue, but it is still with us as a survival, and it offers a very hard problem to the decorator, amateur or professional. If it were only practicable to change its tone there would be no difficulty, but it is a matter of serious expense to refinish an entire set of furniture, or to work the varnish off the woodwork of a room. So in most cases the thing to be done is to find some combination of colors in which yellow brown can bear its share in the harmony, or else to discover an agreeable contrast.

The Brown Room.

One does not choose brown for the dominant color of one's surroundings. It is hardly cheerful in large masses, however good as a background, or as a foil. But golden oak furniture will come out very well against a plain or two-toned wall of medium brown without much yellow in it, provided the woodwork is also oak. Sunlight, a touch of black, an Oriental rug, and strong reds and blues in bric-a-brac and furnishings will redeem the monotony. If the furniture is of the darker tone, in use a few years ago, which is not golden but yellow brown, the tone of the highly polished, patterned oak, it is possible to use a red terra cotta wall, but the number of things which can be put into a room of this coloring is extremely limited.

Probably the most satisfactory contrast for golden oak is a low toned green, not a pure green, but an olive tone, preferably with woodwork painted in a darker tone. With a rug in green and brown, and upholstery of one of the verdure tapestries, one may get a beautiful and restful room, in which the golden brown tone of the furniture takes its place as an essential part of the harmony of color.

One thing is almost impossible to adapt to golden oak, and that is white painted woodwork. Which is a pity, as there is so much golden oak bedroom furniture extant. The only consolation is that it is a compar-

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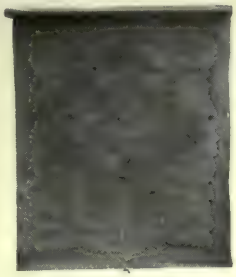
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atively simple thing to refinish bedroom furniture, and golden oak may become fumed or weathered at slight expense of time and money.

Gate Leg Tables.

In planning the furnishings of the summer cottage, be sure to include one of the delightful gate leg tables. Antiques are worth anywhere from one to three hundred dollars, but there are excellent reproductions at about twenty dollars, with a top forty-two inches in diameter, just the thing for the centre of the living room of a country house. One does not find them in ordinary furniture shops, but they can be ordered from the factory, in hard wood, and of any stain desired. Our grandfathers, with a touch of the same exaggeration which they applied to roses, called these tables thousand-legged tables, but there are really only eight, but so cleverly cross-braced that the table is as firm as a rock. They seem to need for their proper finish a tall lamp, and they should never be covered, other than with a square or oblong of tapestry, or velveteen.

The Uses of Velveteen.

The past winter has seen velveteen in great popularity, and at this time short lengths can be picked up for a song, which have many decorative uses. Not all colors shown in dress goods are suitable for furnishings, but there are good greens, soft reds, golden browns and dull brownish purples, any of which, with an edging or banding of antique gold braid, make pleasing pillows or table squares. Velveteen and its upholstery synonym, cotton velvet, have never been so popular here as in England, which is to be regretted, as they are quite as effective as velour, and much cheaper as well as having a more varied range of color. A color which might look crude in a plain material is often admirable in a piled fabric, and this is particularly true of the purple shades, which are so difficult to manage well.

One finds a copper red in velveteen,

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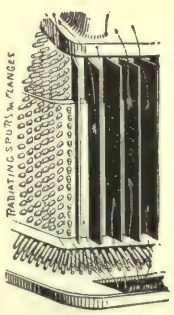
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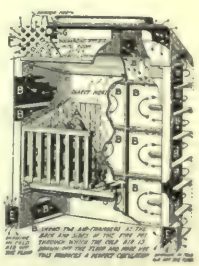
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which combines charmingly with dull green pottery, or green bronze, a pale, lowtoned green which is effective with golden brown embroideries, and a light plum color which goes well with blue Chinese porcelains and with pewter, oxidized silver, or antimony.

Grouped Windows.

Groups of small windows, often set rather high, are a pretty feature of many modern houses. Most of them require the simplest of straight curtains, hanging sill length, with shades only when needed for a protection from strong sunshine. When they have a panel of stained or painted glass set above them, the curtains should be of thin silk, or of colored net, rather than of white material. When the upper part is absent, or of plain glass, it is well to use the net curtains with a valance and straight side curtains of plain silk harmonizing with the furnishings of the room.

It is well to remember that these small windows, set high up, need some sort of balance, in the shape of a long couch or table set against the wall below them. If they are in a recess, have a built in seat filling the entire space, with its covering carried up on the wall to the sill line.

A Rack for Bedclothes.

Behind the door in a country house guest chamber, is a white enameled curtain pole, bracketed to the wall. This holds the drapery of the bed, when it is folded off at night, also an extra blanket or two. A similar pole, bracketed against the wainscoting of the bathroom is an admirable towel rack.

The best pole to use for the purpose is a hard wood one. Work off the old finish with lye, give it two coats of white paint and a finish of enamel. If the enamel is put on over the old finish it is sure to chip off.

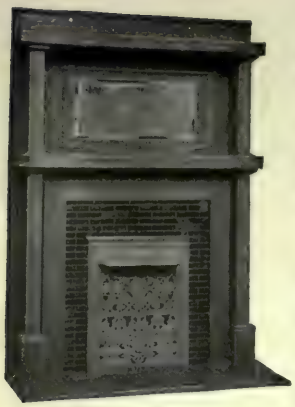


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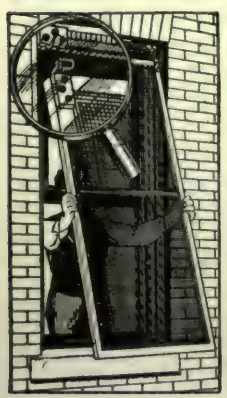
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ANSWERS TO QUESTIONS
ON INTERIOR DECORATION

Editor's Note.—The courtesies of our Correspondence Department are extended to all readers of *Keith's Magazine*. Inquiries pertaining to the decoration and furnishing of the home will be given the attention of an expert.

Letters intended for answer in this column should be addressed to Decoration and Furnishing Department, and be accompanied by a diagram of floor plan. Letters enclosing return postage will be answered by mail. Such replies as are of general interest will be published in these columns.

A. M. E.—Have reception hall with dark oak woodwork, oak furniture upholstered in black leather, Oriental rug, rose colored hangings. Thought of papering in red. In the parlor have furniture and mantel of natural mahogany, black leather coverings, hangings of gray tapestry with floral design, pink, blue and green. Had thought of gray rug and paper.

In a dining-room of early English oak, green rugs and draperies, green glass in the upper half of windows, would you restain the floor early English? In den on second floor have natural mahogany mantel and white tile, with gas log, yellow pine woodwork, oak furniture and Oriental rug. Had thought of refinishing woodwork, floor and furniture in bog green and papering in tobacco brown and purchasing a Morris chair and couch in brown leather.

A. M. E.—Ans. Should suggest your using a dark old rose, harmonizing with your draperies, rather than a red paper for your hall. You will also find among imported papers conventional designs in leather browns which can be used with an old rose which is yellow rather than pink, and are admirable with dark oak.

Should suggest changing the black leather seats to the parlor furniture, as they are only suitable for a library, dining-room, or hall. Japanese grass cloth, at 50 cents a square yard, makes a beautiful wall covering for a parlor, with a deep drop ceiling, and comes in a very good silvery gray. Instead of a gray rug, have a square of Wilton carpet, made with a border, in two tones of green, harmonizing with the green in your tapestry, or a similar rug in dark old rose, using the tapestry of the curtains for upholstery.

By all means restain your dining-room floor in early English, and a little darker tone than the other woodwork. In your den replace your white mantel tiles by green or brown. Should use a lighter tone of brown, and with more yellow in it than tobacco, and a two-toned paper. If you prefer a plain wall, have your couch and Morris chair covered with a verdure tapestry in green and russet tones.

J. N.—Will you suggest a decorative scheme for our new house, consisting of living-room, dining-room, kitchen, two bed-rooms and bath-room, all on one floor. Ceilings are nine feet high and all the rooms are to be tinted. The living and dining-rooms are to have beamed ceilings and lower walls paneled. How high should these panels run?

The living room is 14x23 with French windows and doors at either end. How shall I treat these doors and windows so as to soften the glare? I have for this room a piano in dark cherry and an Oriental rug in which the predominating colors are tan and red. What other furniture shall we need and would you suggest a davenport? The fireplace here is to be of clinker brick. Would a Delft blue be suitable for the kitchen, which faces south?

J. N.—Ans. With a nine foot ceiling should suggest that the paneled side walls run to a height of six feet. Have the woodwork of the long living room stained a medium brown oak, the wall above it tinted a warm golden brown, harmonizing with the tan color of your rug. In the dining-room have weathered green woodwork in rather a dark tone with a sage green above it, a cool shade with very little yellow in it. Use ivory white for the ceiling between the beams in both rooms. A light Delft blue, rather gray in tone, is excellent for a kitchen wall.

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In the two bed-rooms, facing north have white ceilings dropped two feet on the side walls, and tint the northwest room a warm buff, the northeast one a delicate shade of old rose. As a tinted wall is apt to be damaged in a bath-room, why not have a dado of white burlap, or Sanitas, four feet high, with a clear, pale yellow tint above it?

To soften the glare from your windows and doors you will need thin curtains next the glass, preferably of some ecru material of which there is a wide choice. You can get ecru muslins as low as a shilling a yard. Or you might have heavy, plain ecru Brussels net, simply hemmed and tied back midway of the doors and windows with cord and tassels. Much cheaper and very artistic indeed are curtains of common five-cent cheese cloth, neatly hemmed and given an ecru tint with strong coffee or with tan colored dye. If you want something a little more elaborate, you can get the filet net which comes in small square patterns, at seventy-five cents a yard, and border the ecru cheese cloth with a line of these squares.

As your cherry piano will not look particularly well with oak woodwork, would recommend your standing it across a corner of the living-room with its back to the room, concealing the latter with some sort of a hanging, or by a tall screen. This is much the best way to have a piano stand, although it is not usual. I should like a davenport in the long space opposite the fireplace. Why not have one of the settle tables with a circular top, stained to match your woodwork? They come with tops forty inches in diameter, or less, and there is also a kind which has a rectangular top. Have a small desk in one corner of the room, with a chair to match it, an arm chair in Mission style and two or three chairs in brown wicker, with loose cushions of cretonne in tan, red and blue, harmonizing with your rug. If you stand your piano across a corner you might have a short oak settle stand against the draped back, with a tabouret beside it, using red for the drapery.

L. D. N.—I recently built a summer cottage on the shore of a small lake, about 50 miles north of here. I had to leave before I could paint the same. It rained some and there have been several damp days since then, also some dry, sunny and windy days. I think the surface was in fairly good condition, i.e., not wet, before it began to freeze up. Do you think I can safely put on a coat of priming now, even though the weather is below freezing?

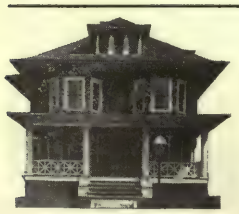
L. D. N.—Ans. The principle for you to keep in mind is that paint should not be put over wood that has dampness in it whether the weather is cold or warm. Acting upon this principle you will need to remember that dampness does not dry out so readily in cold weather and in the short days of fall and winter as it does during warm weather. On the other hand if the wood has had a chance to dry out thoroughly it will be entirely safe to prime your house, having the work done during the middle part of the day, after the frost of the morning has gone and before the dampness of evening sets in. On the other hand, if the wood is not pretty well dried your house will receive less damage by exposure to the weather during the winter than it would by putting on even one coat of paint over the damp wood.

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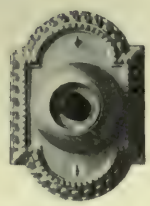
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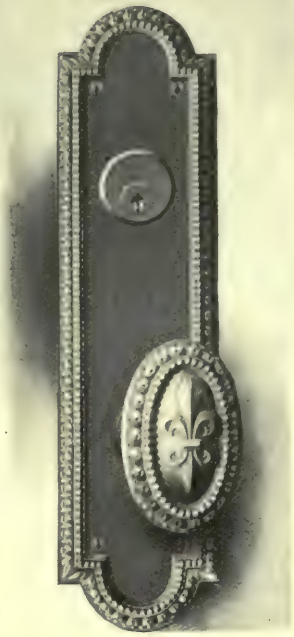
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Extravagant Economics.

ONE department of training in domestic science consists of instruction in the equipment of the kitchen. The pupil is taught not only what is necessary in the way of kitchen utensils, but escorted to the house furnishing shop and shown how to select her saucepans and strainers, the expedition affording a pleasant relaxation from the scientfic part of her work.

But the impression conveyed to the ordinary housekeeper, when she hears the detail of the things considered necessary for systematic housekeeping, is that the practice of domestic economy, in the twentieth century, is extremely expensive. There would seem to be no limit to the number of processes in preparing food, and each process requires a separate utensil. The practical housekeeper knows better, but the theoretical housekeeper has been taught otherwise, and all the luxuries of kitchen equipment seem to her absolute necessities. Therefore, when she is confronted with the kitchen containing only essential utensils, or is unable to afford them in her own kitchen, she is helpless, and feels herself restricted to a very small number of culinary processes.

It would seem as if the best sort of domestic training were the sort which should teach adaptability to varying conditions. The number of people who can have all the latest devices of culinary science is of necessity small, those who must use makeshifts a great multitude. Even if means are abundant, the training in ingenuity, in the adaptation of unlikely means to desirable ends, is valuable in itself.

Perhaps the tendency to insist upon an elaborate equipment is a part of the specalizing turn of all modern training, or it may be a side issue of the general extravagance of the day, but in any case it is hard upon people of moderate means. When servants with their careless and wasteful ways insist upon expensive appliances, the condition becomes a calamity.

It may be desirable to have eight saucepans of varying capacities, but as a matter of fact three, one, three and six quart respectively, will answer every purpose. A graduated quart measure will measure pints and half pints as well as the exact sizes. A fish kettle is desirable when a whole salmon is to be boiled, but few families ever have a fish which cannot be boiled in an ordinary kettle. Any number of other illustrations will suggest themselves.

Rather let us have in our school of domestic science, in our public school cooking classes, in economic instruction generally, emphasis laid upon the essential simplicity of the small equipment really necessary. Such emphasis will not be to the advantage of the people who deal in house furnishing goods, but it will have a tendency to smooth the path of the housewife, and to grease the wheels of the domestic machinery.

Fish Eating from the Economical Standpoint.

Aside from any religious feeling in the matter, it is highly desirable that fish should enter into our diet, to a considerable extent. It is nutritious and easily digested, and is less stimulating than meat. Moreover, it is one factor in the variety which is so desirable in the daily bill of fare.

In the mere matter of dollars and cents fish is considerably cheaper than meat, but

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Combination System

It is a perfect combination of the advantages of both vapor and vacuum systems—*a vapor system with a vacuum attachment.* With the vacuum attachment disabled or entirely detached the Moline System would operate perfectly as an ordinary steam system. It requires no pumps or troublesome automatic air vents on radiators. All air and water are expelled through central vacuum valve and air trap in basement.

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its cheapness is specious. It is so much less solid than meat that people eat a great deal more of it, and nearly double the quantity is required. The really economical use of fish is in made dishes of various sorts, and in chowders. There one gets the distinctive flavor of the fish, and it is possible to use the cheaper sorts of fish to good advantage. One thing that makes fish no cheaper than meat is the fact that it contains so little fat that the lack must be supplied with butter, if it is to be an efficient article of food.

In families where the weekly fish dinner is the custom, its nutritive deficiences may be supplied by beginning the meal with some sort of a cream soup, and finishing it with a dessert of the more substantial sort, like apple dumplings, or a suet pudding. Also, on that day, the breakfast and luncheon may well be a little more substantial than usual. The proper balancing of the ingredients of the day's bill of fare does not get as much attention as it ought to have. Too often the fish dinner is supplemented by a dessert of fruit, and the roast beef topped off with a heavy pudding or a solid pie.

The Assimilation of Wheat Flour.

Here is a crumb of consolation for the people who have a sincere preference for fine wheat bread. It is that while white flour is less nutritious than whole wheat, rye, or graham, it is assimilated with less waste, so that the advantage is not so greatly on the side of the coarse breads as has been thought. In fact the principal recommendation for the latter, aside from its appeal to some tastes, is its medicinal qualities, which are equally attainable by the abundant use of fruit. In connection with the use of white bread, it may be remarked that the French, admittedly the most acute of European peoples, are great eaters of white flour, in bread, cake and pastry.

Cleaning Willow Furniture.

In planning various renovations, one thinks of the willow furniture. It takes a new lease of life if it is brushed over with strong salt and water, and then rubbed dry with a woolen cloth. If it is to be repainted, the cleaning process is doubly important.

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FOOD comes out of the Leonard Cleanable Refrigerator exactly as it went in—pure, free from odor, delightfully fresh. Your health and the health of your family demand **perfection** in your refrigerator. You can't afford to risk ptomaine poisoning. I have a refrigerator that absolutely eliminates this danger—the

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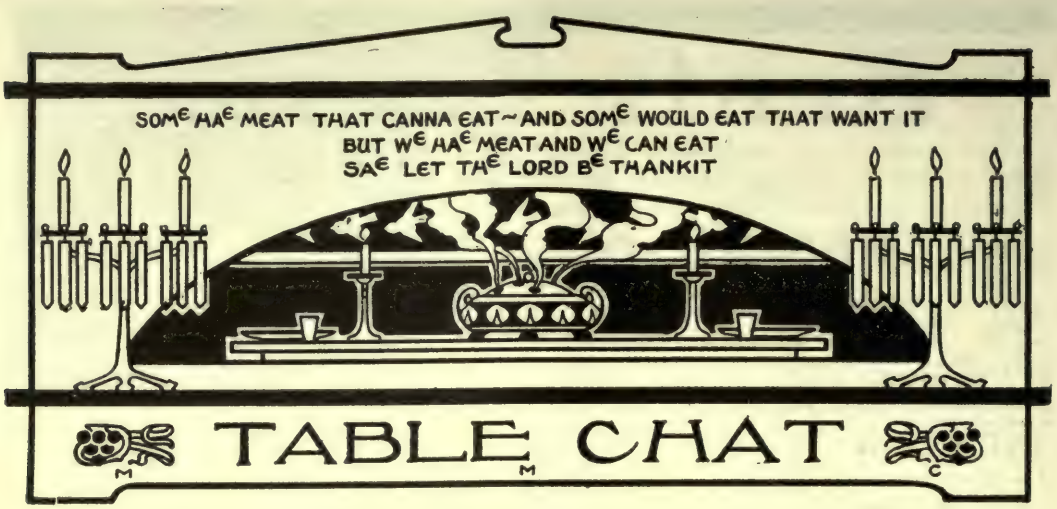
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WHAT THE MARKETS OFFER IN APRIL.

Chives, Onions, Rhubarb, Asparagus.

By Beatrice D'Emo.

AS chives are always purchased by the clump, with the roots and soil attached, the best way is to put the plant in a flower pot, keeping it in a bright but not sunny window and watering it daily. The green tops can be clipped off for use and new ones will grow up in their place in a week or more. For luncheon thinly cut bread sandwiches, buttered and sprinkled between with the chopped chives, slightly salted, are very appetizing. For a chives omelet for four people beat four eggs until light, using a plated fork, not the egg beater, then add half a teaspoonful of salt, three tablespoonfuls of lukewarm water and a shake or two of pepper. Heat the omelet pan or a very even skillet, and put in it a tablespoonful of butter, running it around the pan so all the surface is coated, and when a slight smoke begins to rise pour in the eggs. Let stand for a minute to set, then gently draw away the firm portions from the surface of the pan so that the liquid part may come next to the hot metal. When all is fairly firm sprinkle on a layer of chives, which have been well washed, then cut fine with the kitchen scis-



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TABLE CHAT—Continued

sors; after which, with a broad-bladed knife, fold over the omelet and serve at once. For cottage cheese and chives—a delicious breakfast or luncheon dish, not as well known as it deserves to be—cut the chives fine, using a tablespoonful for half a pound of the cheese; moisten the cheese with a tablespoonful of sweet cream then work the chives into it with a tablespoon or knife-blade, adding a pinch of salt and a shake of cayenne or paprika. When all is well mixed make into a mound, or several small rolls, on lettuce leaves and pour a little cream over the cheese. Instead of the cottage cheese, Neufchatel may be used. Thin rye bread-and-butter sandwiches or toasted crackers make a good accompaniment. To use the chives with lettuce salad, merely add them after chopping to the French or mayonnaise dressing.

Young onions, scarcely larger around than a lead pencil, eaten merely with salt, are a welcome change from the winter salad, but the larger ones, more closely resembling the leek and usually called scallions, are very palatable boiled and served with cream sauce. For such purpose cut off the green tops to within an inch or so of the white part, also trim off the root filaments. Tie three or four of the scallions in a bunch with white cord and cook in boiling water for twenty minutes or less according to size. Have rather thick slices of toast trimmed and buttered, one for each person, and on these lay the onions in bunches, clipping off the cord. Pour over a sauce made by rubbing together a tablespoonful each of butter and flour, then adding by degrees a cupful of milk, stirring with a fork over a moderate flame until like cream, when salt slightly and use.

What is known as strawberry rhubarb, with delicate pink stalks, is the finest flavored, and these first comers do not require peeling. Cut off the leafy tops, wash the stalks, then rebunch them and with a sharp carving knife cut all at one time. For simple rhubarb sauce use as little water as will prevent the cut stalks from burning—if the double boiler is used it will mini-

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The leading hospitals use the "Monroe" exclusively and it is found today in a large majority of the very best homes. It is built to last a lifetime and will save you its cost many times over in ice bills, food waste and repair bills.

The "Monroe" is never sold in stores, but direct from the factory to you, **freight prepaid** to your railroad station, under our liberal **trial offer** and an ironclad guarantee of "full satisfaction or money refunded."

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mize the danger of scorching—and cook slowly until tender, when sweeten to taste with powdered sugar, cooking for two or three minutes after the sugar is added. A half a cupful of water to a pound of rhubarb is about the correct quantity. Chill well before serving. Some cooks add a little thinly-shaven lemon peel, but usually the plain rhubarb flavor is preferred. For rhubarb pie the stalks should not be cooked first, but boiling water should be turned on them and let stand for five minutes to render the stalks less acid. Cover pie plates—rather deep earthenware ones are most desirable when there is to be a fruit filling—with puff paste, then mix the scalded stalks with granulated sugar using a cup of sugar to two of rhubarb and a tablespoonful of apple sauce. Fill the pie plates, then dot the surface of the rhubarb with bits of butter, using about a tablespoonful to a pie. Do not use a top crust, but a lattice of paste may be added, and bake for about half an hour, or until the rhubarb is tender.

Directions for making soup from the broken tips and the stalk ends of asparagus may prove acceptable, for in this way two bunches of the delicacy may be made to feature at two meals on different days. Cut off the stalks from two bunches to within four or five inches from the tip and cut them again into inch-long bits, which simmer, after washing thoroughly, until tender in a pint of salted water. When soft, mash them, then strain off the water. Heat a pint of rich milk in a double boiler, adding a small pinch of baking soda to it to prevent curdling, cooking with it one small onion, cut in quarters, and when the milk is boiling hot take out the onion, stir in a tablespoonful of butter mixed smooth with an equal quantity of flour. Cook till thick then remove from the fire and add the hot asparagus water, flavoring with salt and white pepper. Do not cook after adding the asparagus water. Serve with the soup toast fingers. A half a cupful of cream stirred into this soup just before sending it to the table is a fine addition.



SHAD ROE CROQUETTES

The shad is exclusively a spring visitor, Plank cookery is in high favor for it and is not difficult if one has a clear, hot fire before which to stand the plank, or a gas cooker beneath which the cooking can be done. The plank can be obtained at any hardware shop, and should be toasted in a hot oven when first purchased until it is all of a delicate brown. Never wash these planks, but scrape clean with a knife-blade and wipe off with cold water; before putting the fish on it rub the plank with butter. The fish must be split as for broiling and laid skin side downward on the plank, being fastened in

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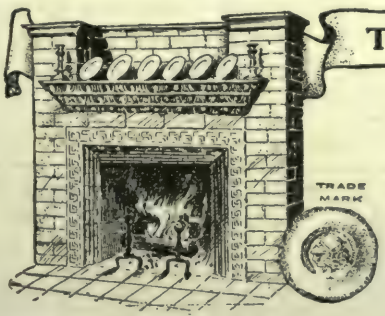
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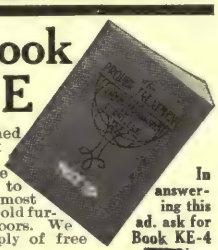


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The CHARLES C. THOMPSON CO., Publishers, Chicago.

position by little pegs which come for the purpose, or crossed wires. The plank should be stood in front of the coal or wood fire or slipped under the gas flame, but do not attempt cooking the fish under the coal grate, or grit and cinders will spoil it utterly. Baste the shad from time to time with melted butter, with or without the addition of lemon juice, and when thoroughly cooked, as can be told by the meat parting in flakes, sprinkle salt and pepper over it, remove the pegs and slip the fish carefully on a hot platter, garnishing with lemon quarters and cress; or with the latest style plank comes a plated tray, on which the fish, plank and all can be brought to the table. With planked shad one side only is browned. Broiled shad, which is almost as savory, is cooked like any other fish; so, too, is baked shad. The roe, however, is a delicacy in a class by itself, and can be fried, broiled, scalloped or made in croquettes. For any of these methods it must first be parboiled for fifteen minutes in salted water, to which has been added the juice of a lemon or a tablespoonful of vinegar. Pour off the water, dry the roe and, if to be broiled, rub with melted butter and broil over rather a slow fire, basting with butter from time to time until cooked through.

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Little Lola—Why is it a fairy tale?

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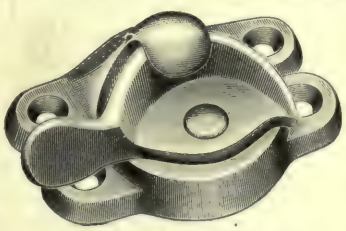
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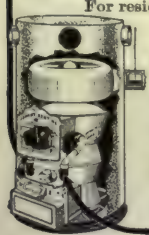
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To Prevent Dusting or Easy Abrasion of Improperly Laid Concrete Floors.

By Albert Moyer, Assoc. Am. Soc. C. E.

CEMENT floors, particularly in office buildings or warehouses, which do not have the advantage of obtaining the necessary moisture from the atmosphere such as outside floors and sidewalks on which the dew falls at night, if not properly protected and kept damp, become prematurely dry and are therefore more or less porous and weak, causing easy abrasion under foot traffic, or what is commonly known as dusting.

Care should be exercised in keeping such floors damp by covering with wet sand, wet hay or straw, for a week or more until the floor has properly hardened. If this has not been done and the floors are found to dust under foot traffic, the following remedy will be found very easy to accomplish, economical and effective.

Wash the floor thoroughly with clean water, scrubbing with a stiff broom or scrubbing brush, removing all dirt and loose particles. Allow the surface to dry, as soon as dry apply a solution of one part water-glass (sodium silicate) of 40° Baume, and 3 to 4 parts of water, the proportion of water depending upon the porosity of the concrete. The denser the concrete the weaker the solution required. Stir well, and apply this mixture with a brush, (a large white-wash brush with long handle will be found the most economical). Do not mix a greater quantity than you can use in an hour.

If this solution is sufficiently thin, it will penetrate the pores of the concrete. Allow the concrete surface thus treated to dry. As soon as dry, wash off with clean water, using a mop. Again allow surface to dry and apply the solution as before. Allow to dry and again wash off with clean water, using a mop. As soon as the surface is again dry, apply the solution as before. If the third coat does not flush to the surface apply another coat as above.

The sodium silicate which remains on the surface, not having come in contact with the other alkalies in the concrete, is readily soluble in water and can therefore be easily washed off, thus evening up the color and texture of the floor. That which has penetrated into the pores, having come in contact with the other alkalies in the concrete, has formed into an insoluble and very hard material, hardening the surface, preventing dusting and adding materially to the wearing value of the floor.

Paint Coatings for Concrete.

The use of cement concrete for structural purposes has already become world-wide, and it is increasing at a rapid rate. Heretofore little attention has been paid to coatings for concrete. Enough time has now elapsed to show that cement concrete alone is not as durable as might be wished partly because the cement either contains free lime or develops free lime within itself, after setting. Furthermore, concrete in order to compete with other structural materials has had to be economically handled and roughly finished, and its resulting unsightly appearance has detracted from its desirability. It is therefore clear that there is great necessity for both protective and decorative coatings for concrete. The problem of waterproofing concrete is being studied from several standpoints besides that of applying protective coating. For instance, the endeavor to reduce the voids in concrete to a minimum, as well as to obtain uniformly finely ground cement and to eliminate the tendency of the cement to form free lime in setting, are all absolutely necessary steps in the production of a water-proofed concrete and are the special business of the cement



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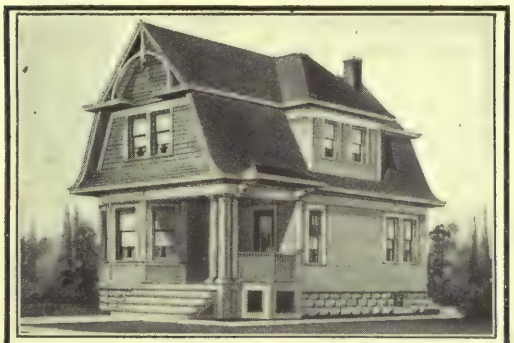
Factors

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manufacturer and engineer of construction to work out.

Much experimental work is under way with regard to waterproofing concrete by means of addition of various foreign substances in small quantities to the aggregate. Some of these materials are of mineral composition and others are organic. Many compounds are now on the market, but the composition of most of them is not published. Some analyses have been made recently on a series of compounds widely advertised for use in waterproofing, strengthening, or decorating concrete. Among the materials contained were stearic acid compounds, gums, waxes, soaps, mineral chlorides, inert pigments, and asphalt derivatives. Much interesting information is given regarding the composition of such compounds, although the names of the particular compounds are not given. The possibility of ultimate deleterious effects on concrete from the use of these internal waterproofing materials is a subject for joint study by engineers and paint chemists. In addition to proving the advantages of such materials as water excluders, it should be determined whether they may corrode the steel used in reinforcing concrete or whether they may affect the set and tensile strength of the cement itself.

It is particularly the province of the paint chemists to study the subject of paint coatings for concrete. Oil coatings have been found to be badly affected by the free lime present, which causes saponification and subsequent solution of the saponified coating. The porosity of cement or concrete surfaces causes an absorption or suction effect that renders it necessary to apply to a given area three or four times as much paint as would cover an equivalent area of wood. Two very important lines of investigation are therefore suggested—the neutralization of the free lime in the cement and concrete and the proper filling and treatment of the pores of the concrete—in order to prevent the suction of any paint that may be applied later.—Contract Record.



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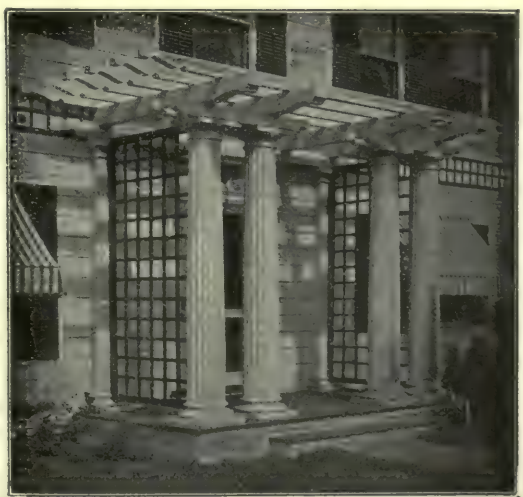


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Standard Specifications for Reinforcement Bars.

The Association of American Steel Manufacturers has just announced the formal adoption by letter-ballot of a standard specification governing the chemical and physical properties of concrete reinforcements bars. This announcement is an important one since it is the first specification to appear which could be called authoritative; it also differs from the many specifications under which steel for reinforcement has been manufactured up to this time in the fact that hard steel as well as the usual medium grade is included in both plain and deformed sections; also in providing standards for the manufacture of cold-twisted bars.

The Association of American Steel Manufacturers is a technical body composed of the principal steel manufacturers of the United States. A remarkable feature of the promulgation of the new specification is the fact that this association was the first of the technical societies to formulate a specification for structural steel—the well known Manufacturers' Standard—just as it is now the first to cover this newer field.

The need for a standard specification for these forms of construction materials, of which an enormous tonnage is used, has grown very apparent to both engineers and manufacturers, so that there is every reason to expect that the Manufacturers' Standard specifications for concrete reinforcement bars will be very generally employed.

These pamphlets will be furnished free on application to the secretary, Jesse J. Shuman, care Jones & Laughlin Steel Co., Pittsburg, Pa.

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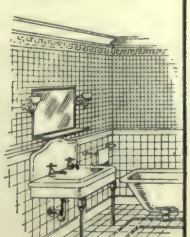
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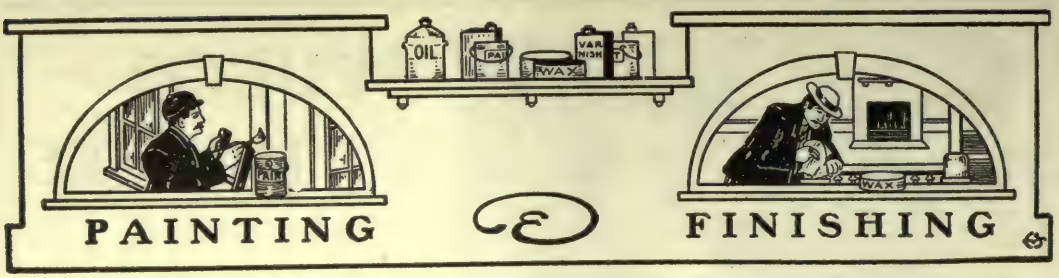
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Crawling of Paint.

THIS is quite a common complaint. Paint will crawl in cold weather, also in warm weather when applied over an old and glossy surface. The cause is practically the same in either case. It is sometimes advised to pour off the liquid part of a paint that crawls, and add a little turpentine, but this is not the best, as it is not the fault of the paint that it crawls, but of the surface. The very best thing to do is to apply a coating of clear benzine in gasoline to the surface, and paint over that. This is a sure cure. Vinegar is also good, but is not desirable in freezing weather, and will do no better than benzine, if as well.

Aluminum Paint for Stoves.

The aluminum bronze is best when mixed with varnish, thinned with benzine or turpentine; and if a stove or radiator is coated with this the job will look well for some time. One correspondent reports a stove looking well for six years after bronzing with aluminum, and a school radiator still bright after five years' wear. A stove or radiator should be made perfectly clean before being bronzed.

Protecting Wax Finish.

Wax finish is not very durable in the presence of water, and when a drop gets on it there is sure to be a whitish spot. The finish may be protected with a coating made as follows: Zanzibar copal varnish, six parts; boiled oil, six parts; turpentine, ten parts; all by weight. Mix thoroughly and apply.

Painting Over Un-dry Putty.

Painting over putty before it is dry has about the same result as painting over un-dry paint. If the paint does not scale off the putty, it will crack around the edges of the nail hole. In hurried jobs it will be well to dab a little shellac over the fresh putty.

Sand-Finished Walls.

You will no doubt have these to water-color this spring, and if you have had little or no experience with such surfaces a little advice may be useful. Usually a size coat of whiting and glue, with a little umber to color it, and some alum to harden the size, will be sufficient. This is especially fine for very rough walls. Put plenty of glue in it, so as to form a good hard surface. Sometimes there is applied over this a coating of soap size, this being necessary when a three-coat job is wanted. Or you can apply an alum size, and before this dries follow up with your water color.

Why the Paint Blisters.

There are several causes for paint blistering, a frequent one of which is found in applying too heavy a series of coats and not allowing sufficient time for drying, the result being that when the sun strikes the mass it swells and raises the upper coating and forms blisters.

A Kalsomining Trick.

The addition of two teaspoonfuls of turpentine to the pail of kalsomine will make the latter work better, and enable one man to successfully do a ceiling that usually two men do. When the first coat of kalsomine is likely to rub up, add a little raw linseed oil to the stuff used for second coating.

Acetone.

One of the best solvents for removing paint from hands or fabrics is acetone. It is cheap, colorless and evaporates quickly. It will leave no odor behind, and will not injure the most delicate fabric.

Oiling a Floor.

A master painter told at a meeting of painters that he has gotten good floors by oiling, using just a thin coat, well rubbed in, and in thirty minutes' time apply a coat of shellac. He had in mind a new floor.

A Favorable Time to Paint



THREE years ago, when linseed oil sold around 50 cents a gallon, the normal production of flaxseed in the United States was 22,000,000 bushels. For 1910 the accepted estimate is 8,500,000 bushels, and the Argentine crop has not come to the rescue.

This means that linseed oil is pretty certain to remain high. But the cost of painting this spring with

"Dutch Boy Painter"
Pure White Lead

and linseed oil will be only a trifle more than when linseed oil sold at 50 cents. This is so simply because the linseed oil is a small part of the paint and because it is a still more insignificant factor when *all* the things you pay for in a painting job are considered. The biggest part of the cost is labor. Therefore, four or five dollars will cover the entire increase in the cost of painting the average house—surely not enough to justify letting any kind of house suffer from lack of paint.

Do not use poor materials because you think good paint is too high. Get from your dealer the cost of the following ingredients:

100 lbs. "Dutch Boy Painter" white lead	$.....
4 gallons pure linseed oil	.....
1 gallon turpentine	.....
1 pint turpentine drier	.....
This makes 8 gallons genuine old-fashioned paint	.....

You will find that per gallon our pure white lead and pure linseed oil is cheaper than you thought, and when you consider its superior covering power, the economy of the best is easily shown.

Our white lead is sold in sealed packages containing 12½, 25, 50 and 100 pounds, net weight, of white lead, *exclusive of the package*. Our guaranty is on every keg.

OUR FREE PAINTING HELPS

We will send you, on request, color schemes, miscellaneous painting directions, and names of "Blue List" Painters in your community who use "Dutch Boy Painter" pure white lead. Ask for "Helps No. *KE.*"

To Painters: If you use "Dutch Boy Painter" white lead, ask for our "Painters' Blue List No. KE." *It gives particulars.*

NATIONAL LEAD COMPANY

New York Boston Buffalo Cincinnati Chicago Cleveland St. Louis San Francisco
(John T. Lewis & Bros. Company, Philadelphia) (National Lead & Oil Company, Pittsburgh)

Using White Japan Driers.

If you have used white japan you know how slow a drier it is, compared with the dark japans. This is because it does not get sufficient boiling, which darkens driers. One way of making it calls for white rosin, litharge, and sugar of lead, adding linseed oil to the boiling mass, and finally thinning with turpentine.

Economical Use of Oak Flooring.

As rugs are now generally used, in homes and offices, an economical plan is to have the center section of the room laid with oak flooring of the No. 1 common (third grade) and to employ clear (first grade) or select (second grade) on the borders of the room. As all parts of the floor would have the same appearance, not even an expert would discover that the rug covered sections were not made of quality as high class material as the border, thereby saving 125 per cent in the cost, figuring clear where employed entirely and 60 per cent in the cost figuring if the select grade were employed entirely. This No. 1 common grade of oak flooring can be used to advantage in some of the better dwellings in closets, pantries and other out of the way places at a great saving.

No. 1 common goes through identically the same manufacturing process as the better grades. The only differenec is that the No. 1 common grade contains defects, such as sound knots and slight imperfections in the milling, but makes a floor equally as strong and durable as the better grades.

Three-eighths inch oak flooring can be laid over old floors very economically, taking the place of carpets without in any way interfering with the woodwork of a room. The highest quality of clear quartered oak flooring 3/8x2 inches wide, can be bought, laid and polished for about half the cost of a fair quality of carpet, which proves that carpets are an expensive luxury as compared with oak flooring.

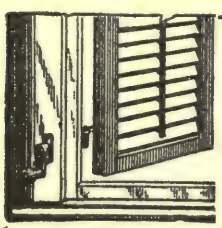
Oak flooring gives an air of refinement and elegance to a home; is rich in color and given attention will never wear out. House owners, builders and contractors know the vital importance of oak flooring in a home, and are fast learning the difference between a house floored with old fashioned soft wood or cheaper substitutes in hardwood flooring, and the home making qualities of a house with oak flooring. The living, renting and selling value of any building, large or small, is vastly increased by oak flooring.

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The Heating Value of Crude Oil.

I HAVE at various times read of the use of crude oil as fuel. Can you tell me any facts about its value as compared with coal and also where it is so used?

Tests to find out the relative value of crude oil and local coal have been made in the state of California, in which it was found that one net ton of coal was equivalent to 94.5 gallons of oil.

Some Evils of Cheap Plumbing.

One of the chief demands upon the housebuilder is to see to it that the plumbing arrangements are properly made and the plumbing work properly done. Features of the installation, such as the location of closets and lavatories, should be carefully planned with the one single idea of making sure that the premises are sanitary. For his own protection the builder should see to it that the specifications call for high grade material. Cheap piping and plumbers' supplies invariably prove the most costly in the end. They necessitate an almost endless series of repairs and inconvenience to the housewife, which disables her for the efficient exercise of her duties to the home. Much complaint is made of the plumbing expenses, but the amount of the bills is not to be considered if the owner of a home honestly desires to equip his house with the best in the market in the matter of plumbing supplies.

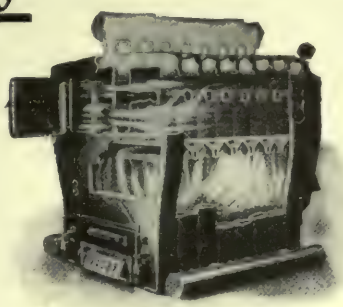
The features to be considered on the outside are the roof work and the conductors leading from the roof and the waste pipes from closets, bathrooms and sinks. The ridges, hip-rafters, valley gutters and platform roofs are often laid with zinc or galvanized iron, but a more durable job can be made with lead. Care should be taken in making proper junctions at the overlaps of either zinc, iron or lead. On this depends the prevention of water finding its way into the roof and causing unlimited decay. The eave gutters and down pipes, made of cast iron, should have the required clips at the joints and be properly secured and supported.

Many homes are rendered practically untenantable by the bathroom being too close to bedrooms. The fittings of the bathroom, when exposed, should be of gunmetal or nickel plated. If common iron piping is employed it should be painted. Piping above the flooring should not be covered, but left exposed, so that any leakage may be readily detected, and in its arrangement the law of gravitation should be carefully taken into consideration. This latter is not only important but absolutely necessary. The location of hot water tanks and their various piping connections calls for the most scientific handling, and unless they are installed in a practical manner satisfactory results cannot be obtained.

The quality of the work done by the plumber will depend very greatly upon the quality of the pipes which he uses in its prosecution. All service pipes should be of the best quality, or the work will be a failure from the beginning. Various kinds of material are used for service pipes in different localities, and they are usually chosen in accordance with the adaptability of the water to the material of which the pipe is composed.

Plain iron pipe is non-poisonous, cheap, and easily jointed, but it soon gathers rust, which fills the bore of the pipe and eats it away, necessitating the replacement by new pipe. Galvanized iron, or zinc coated iron, will retain its coating on the inside a little longer than plain iron, but when this coating begins to scale, as it will eventually, the water may

Feeds Coal in at the Chimney



For every shovel of coal you put in the fire-box of a "RICHMOND" boiler, a *half-shovel is fed back from the chimney.*

It is automatic. It costs you nothing either for the feeding, *or for the coal.*

It is accomplished by our exclusive device known as the "diving flue."

The "diving flue" takes the unburned smoke and gases and holds them back to burn.

For every shovel you put in the fire-box, it saves half a shovel which would otherwise be wasted.

We spend from three to seven times as much as other makers do for a smoke box. But our "diving flue" does three to seven times the work of other flues.

It catches the rich unburned gases as they are about to escape—and holds them back to make more heat.

The economy of the exclusive "diving flue" is only one of many "RICHMOND" economies.

You will find that common heaters are perched on separate bases, and that the cold water enters them at the fire level.

The "RICHMOND" has no separate base. It is solid from the floor up.

Stronger construction—less weight—greater durability,

And the water intake of the "RICHMOND" instead of being at the bottom of the *fire-box* is at the bottom of the *ash-pit.*

The benefit is greater than appears at first sight.

Heat from the Ash-Pit

The incoming water absorbs the heat of the ash-pit—*free* heat, which would otherwise be wasted.

And more:

It reaches the fire-box level, already warm—so that it does not chill the fire.

Look in your present boiler and you will appreciate the value of this.

In a rim around the edge, you will see two inches or more of dead coal or ashes —*where the cold incoming water chilled the fire.*

With the "RICHMOND" there is no deadened rim of fuel—nothing to clog the fire-box and decrease its capacity and the warmth of the ash-pit is utilized *free.*

The "RICHMOND" system represents the climax of inventive ingenuity—*practical* ingenuities that prove their worth in fuel economy—flexible service—heating satisfaction.

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The "RICHMOND" system of heating embraces both hot water and steam—direct or indirect. It is a sectional system, applicable to any building from a three-room bungalow to a plant that measures its floor space by the acre.

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become dangerous to health, as the salts of zinc are poisonous with some waters if taken in sufficient quantity. Tar-coated iron is used extensively on account of its cheapness, but its inner surface of tar will be removed by friction in less than a year. Its advantage lies in the fact that outside contact with all kinds of soil will not affect it as rapidly as it will plain iron. Plain iron is affected by both outside and inside corrosion, so that its decay is hastened.

Pure tin pipe is perfectly safe and non-corrosive, but is difficult to work, as a special solder, called "Bismuth solder," is necessary to joint it properly. It is very liable to crack at the edge of the joint, and leaks are difficult to repair. The lined lead pipe is less expensive and easily worked.

Brass pipe is very durable if properly annealed, is light, strong, and easily jointed. It is said to be poisonous, however, when used to conduct water for drinking purposes. Copper pipes are not used as a cold water supply, but are frequently used on hot water connections between the range and the boiler.—Schoppell's.

A. J. Z.—Your suggestion of using blue tiles in your Dutch room will give a fine effect, but it will perhaps bring an embarrassment to you sometime later should you want to change the style of your room or want to use some other color scheme.

Blue, more than almost any other color, requires an exact harmony of the shades used and it is difficult to combine other colors with blue in a satisfactory way.

It should be safer if you use some of the soft browns or greens in your tile as in that case you can use almost any color in your wall covering curtains, and rugs, without a crash of colors.

You can get tiles showing windmills and other typical Dutch scenes in brown, green and polychrome, the Delft blue is the most frequently seen.

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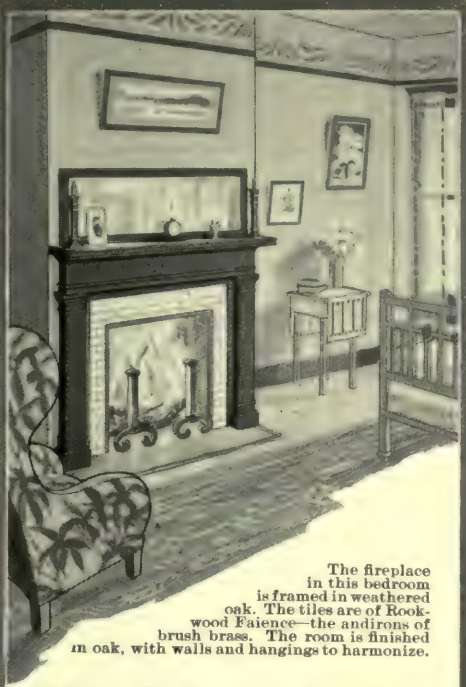
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The fireplace in this bedroom is framed in weathered oak. The tiles are of Rookwood Faience—the andirons of brush brass. The room is finished in oak, with walls and hangings to harmonize.

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There is a Wood Mantel to frame every style of fireplace. You can get Wood Mantels in all designs—all woods—at all prices.

Write for the book of designs. Look it over with your architect. He will specify a Wood Mantel to frame your fireplace because he knows from experience how much easier it is to make the fireplace fit into his plans—when it is framed by a Wood Mantel.

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Glue Size Under Paint.

IT IS all right if there is no danger from dampness. If damp can get at the glue size, then the paint is gone. Otherwise there is a saving when we apply a good coat of glue to a wall, and even to some wooden surfaces. Made as strong as the nature of the surface will permit, the glue size will give a solid surface that one coat may do on, while otherwise two or more coats of paint would be required.

Scarcity of Genuine White Oak Timber.

Washington, D. C.—It will surprise most persons who know something about oak to be told that the so-called white oak timber of our markets is often a mixture not only of various species of the white oak group but also of other species, such as the red oak. This generally unknown fact is reported by the U. S. Department of Agriculture, which, as a part of its forestry work, is frequently called upon to pass judgment upon the identity of market woods in dispute.

Foresters divide all the oaks into two distinct groups—the white oak group and the black oak group. One way of distinguishing the two is by the fact that the black oaks require two years to mature their acorns, while the white oaks take but one. The woods of the two groups of oaks are also structurally different. The true white oak, known to botanists as Quercus alba, is merely one of the species which make up the white oak group. Red oak, on the other hand, belongs to the black oak group. Red oak has a number of other common names, among them mountain oak, black oak, and Spanish oak.

There is so much confusion in the ordinary use of names of the oaks that it is almost impossible to keep them straight without resorting to the scientific names, but the marketing of wood of the black oak group as white oak is hardly fair to the consumer. Red oak, for instance, is now much more abundant than white oak, grows faster, and is generally regarded as inferior. The two species often grow together and occupy the same general region.

At the present time it is almost impossible to obtain a consignment of white oak that does not contain pieces of some other species. Of the white oak group those most used, in addition to the true white oak, are bur oak, chestnut oak, chinquapin oak, post oak, swamp white oak, cow oak, and overcup oak; of the black oak group, Texas red oak, red oak, and spotted or water oak.

Real white oak timber of number one quality is very largely cut into quarter-sawed boards, while a combination of one or more white oaks and red oak may constitute other cuts of "white oak." In many markets, the term "cabinet white oak" is now understood to include a mixture of white oak and red oak, while it often signifies red oak only.

The question, "What is white oak?" is now coming up among consumers and manufacturers of commercial oak timber. The above-named white oaks are distinct but closely related species, which together must be depended upon for the future supply. For the ordinary purposes for which true white oak is used, practically all the trees of this group yield woods that can be interchanged and will serve equally well.

Engineer-Physicist.

Bureau of Standards.

March 31, 1911.

An examination will be held on March 31, 1911, to secure eligibles in the position of engineer-physicist, at $3,000 per annum, or associate engineer-physicist at $2,040 to $3,000 per annum, in the Bureau of Standards, at Washington, D. C., or the branch laboratory at Pittsburg, Pa.

There will be no educational examination, but it is essential that applicants should have made and published some contributions of recognized merit in engineering

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The Kelsey WARM AIR Generator

system warms great volumes of *fresh air* by the best method; it supplies ventilation; *is recommended by 40,000 home owners;* heats small houses and big houses with 50 or more rooms, and does it with less cost for fuel, management and repairs than any other system that will give as satisfactory results.

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Build Beautiful Houses

It is really cheaper to be beautiful than ugly. Your reputation for taste depends mostly upon the outside of your house. Most people never see the inside. The soft, rich, velvety tones of

Cabot's Shingle Stains

make beautiful houses more beautiful, ugly houses attractive, and redeem commonplace houses. They are also cheap, easy to apply, and guaranteed fast colors; and they are made of Creosote, "the best wood-preservative known."

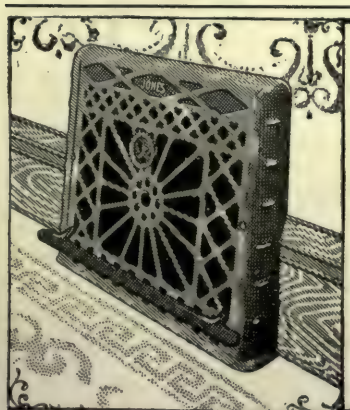
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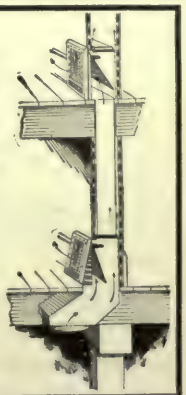
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Our improved "JONES" Side Wall Registers have been installed in over 350,000 of the most comfortably heated homes of the United States and Canada.

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With Your Own Individual Ideas as the Key Note of the Design



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OUR $5.00 SKETCH OFFER

On receipt of $5.00 and a rough diagram or description of your own ideas we will make a special study of your requirements and prepare the first and second floor plans accurately laid out to a scale with a picture of the exterior of the house as it would appear when completed, advising you of the additional charge for Complete Working Drawings, Specifications, Etc., which will be as low as is consistent with the labor involved. This offer applies to residences only costing not over $5,000 and is made simply to demonstrate to you the value of competent services in interpreting and rendering practical your *original ideas* so that the home will be a complete success in every detail.

"There is no art to find the mind's construction in the face." —*Macbeth.*

—BUT—

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knowledge. Applicants should submit the titles of all papers that they may have published and give references to the original source of publication.

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Applicants who desire appointment to this position in Washington, D. C., will be required to show that they have been actually domiciled in the State or Territory in which they reside for at least one year previous to the date of the examination.

Applicants should at once apply to the United States Civil Service Commission, Washington, D. C., for application and examination Form 1312, and further information. In applying for this examination the exact title as given at the head of this announcement should be used in the application.

CATALOGUE NOTICES

Hardware.

Anti-panic door fixtures are shown in an attractive catalogue of P. & F. Corben, New Britain, Conn. The devices are attached to entrance doors opening out, such as are provided in public buildings. The weight or pressure against the doors from within releases the bolts, allowing them to open. A full line of all the component parts is shown, providing not only for the practical working of the fixtures, but for the artistic appearance of the doors.

All buildings where people congregate in numbers should have doors acting upon the principle shown by these, or similar methods.

Nursery and Garden.

A profusely illustrated catalogue is at hand, of the Biltmore Nursery, Biltmore, N. C. Trees, shrubs and flowers are shown with common and botonical names, giving much of interest to beautify the home grounds.

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ELLEN M. HENROTIN,
Ex. Pres. Nat. Federation of Women's Clubs.



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By Emerson Hough.

A story of intrigue in the early days before the civil war. The slavery question is the great issue of the time and the government is much disturbed. A foreign lady of title is thought to be a menace to the administration at Washington and an army officer is instructed to take her secretly to the frontier and lose her. A Missourian of wealth and position is introduced into the story and figures largely in the adventures of the lady. Possessed of very strong personalities, whatever they do is founded on large ideas, either for good or evil.

After a time the lady returns to Washington, this time with powerful friends who could make an international incident out of any indignity thrust upon her. The movement she is interested in comes to nought and many events in the lives of all concerned are cleared up. The lady and the Missourian are left with clasped hands, in an understanding that can have but one meaning. Price $1.50. The Bobbs Merrill Co., Indianapolis, Ind.

The Unlived Life of Little Mary Ellen.

By Ruth McEnery Stuart.

This is a most pathetic little story, strange in conception yet quite possible. A wedding is to take place and the bride faints at the altar before the arrival of the bridegroom, who is faithless. After two weeks' sickness the bride awakens to a realization of her surroundings, but her mind is unbalanced and she imagines that the ceremony has taken place. It is thought best to let her think so and she supposes he is absent, but will return. She is sick in bed and a package containing a large doll is delivered to her, instead of to her little niece of the same name. In her unbalanced condition she thinks it her baby and begins to gain in health and strength.

The doll is destroyed and her grief soon leads to her death.

Price $1.00. The Bobbs Merrill Co., Indianapolis, Ind.

KEITH'S MAGAZINE

ON HOME BUILDING

WITH WHICH IS CONSOLIDATED

THE JOURNAL OF MODERN CONSTRUCTION
IDEAL HOMES MAGAZINE

M. L. KEITH, Publisher, 525 Lumber Exchange, Minneapolis, Minn.

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A VIEW OF THE HOUSE BEFORE THE VINES CLIMBED TO THE PERGOLA

KEITH'S MAGAZINE

VOL. XXV MAY, 1911 No. 5

How We Built a $5,000 House

A Building Experience Artistic and Practical

By A. E. MARR

WHAT could be done for $5,000 was the problem that confronted us. Only two things were definite; the price and the fact that we were going to build a home. Being just human beings, perhaps, we unfortunately had fixed altogether too firmly in our minds the kind of a house we wanted. Each night of discussion developed additional features and corresponding expense. On one thing we were decided. The house must be livable and also to our minds artistic. Whether we succeeded the reader can best decide for himself, as this narrative is unfolded. Enough for me to say it satisfies us, and as it grew we just grew along with it, as all people do who build a home. When a section of the structure swelled out into broad proportions, we puffed out too with what political orators call "pardonable pride," and when that miserable $5,000 forced a squeeze, at times, why we just squeezed ourselves back into the growing edifice, and so the house progressed until the fundamental dream was realized and our home was completed.

Having in mind the experience of friends who had gone over the rocky but after all thoroughly enjoyable road to home independence, through the medium of personal ideas, plus masons, carpenters, plumbers, etc., we wisely decided to profit by their trials, and though we both felt our ability to be unlimited, we concluded that of the architect to be greater. Our first step, therefore, was to cast around for a man to steer us clear of all the stumbling-blocks, and also to spread those precious dollars over as wide a space as possible.

After much deliberation we made our selection and placed ourselves and hopes in the hands of the architect. And right here let me add that the feeling of relief one has as the burden of problems and complications is lifted from one's shoulders and the wrinkles smoothed out by those with technical knowledge of building, more than offsets the figures in the architect's commission. We had our labors. We had our troubles. No home built for one's self is really appreciated unless one has struggled and wrestled with the problems of southern exposures, staircases, room plans and cupboards; these and the one thousand and one other things which puzzle the homemaker and keep him awake nights. When we had passed through all these various stages on paper, it became the work of the architect to combine, eliminate and finally assemble all under one roof our many suggestions.

To one who contemplates building, I would say plan, draw and figure to your

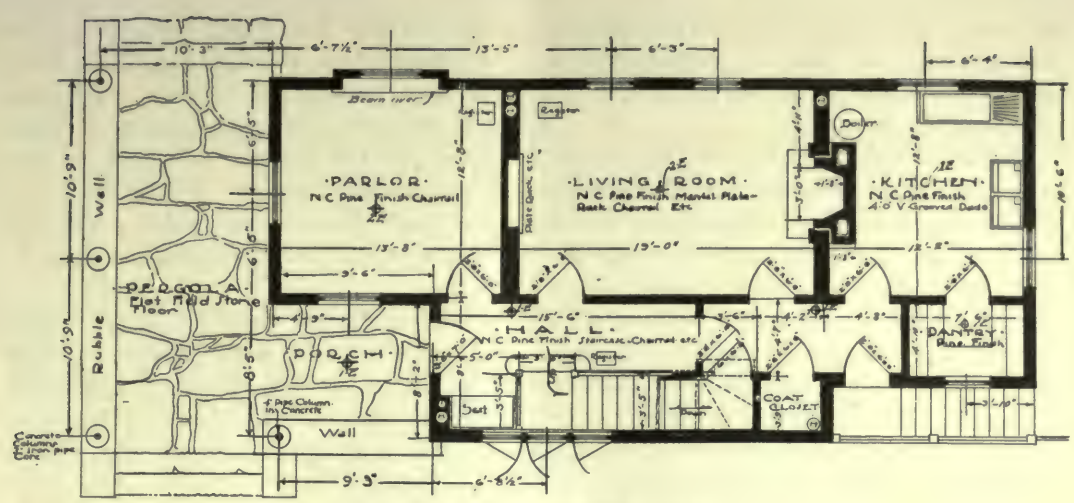


THE PIAZZA WAS PAVED WITH BRICK

heart's content, for those are the joys of home building, but when it comes to assembling all those plans into one harmonious whole, by all means place that matter in experienced hands.

When procuring a lot, take pains to see that the plan of your proposed house will permit of its being set facing with a southern exposure. This gives one a much pleasanter frontage, and permits the front facing rooms to have as much sunlight as possible. Especially see that you have not picked out the toughest ledge to hollow a cellar from. Unfortunately ours was a ledge, and as a start off, some powder, more noise, and a hole in the rock, stood us $85.00 for blasting. To give up this first money was like pulling a tooth. But we got used to it.

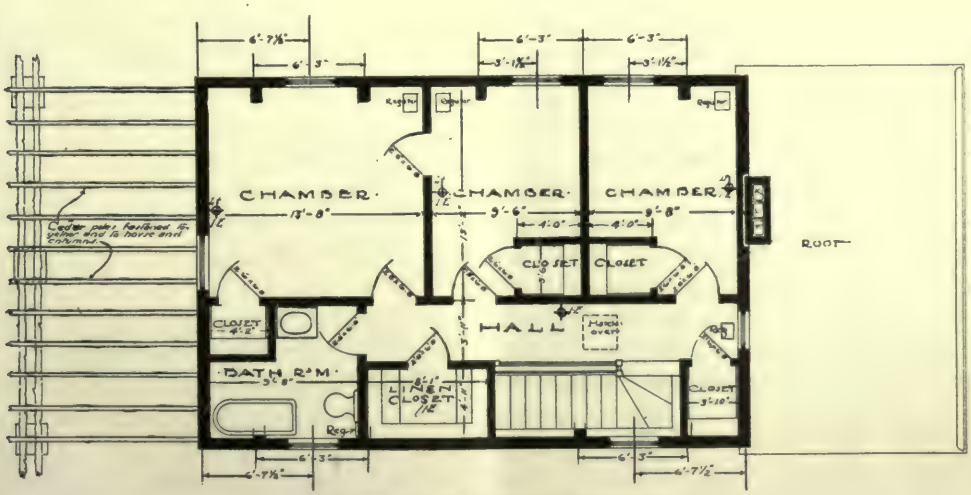
The first floor contains three rooms. The parlor measures 13 feet, 8 inches, by 12 feet, 8 inches, and has three good windows. This room is finished in North Carolina pine, which is both durable and good for an inexpensive hard finish. A chair-rail gave a pleasing effect at small cost. The kitchen is 12 feet, 8 inches, by 12 feet, 2 inches; finished in



WORKING PLANS OF FIRST FLOOR

the same wood and with a four foot dado. The extra cost for this dado was not much, and the service it gave great—protecting the plastering and giving the room a well-finished appearance. With these two rooms taken care of, there was left a space between them of about 19 feet by 12 feet, 8 inches. We really needed a living room, and since to live one must eat, and this was to be a livable house, it was perfectly evident we must have a dining room. As a compromise, we used the space for a combination living and dining room, setting off the end nearest the kitchen with its fireplace for the dining room.

This division was effected with the aid of a movable screen, and on special occasions when entertaining guests, it was a simple matter to remove this screen, push the table into the center of room, and the transformation was complete. This room was also finished in North Carolina pine, as the others, contains chair-rail and plate rack, and was stained a dark walnut. The hall with



WORKING PLANS OF SECOND FLOOR

its comfortable seat and also the pantry was finished in pine, together with a roomy coat closet, and so the first floor was completed.

The second floor contains three chambers, with ample closets, a bath, a spare store closet, and a commodious linen room. The chamber space was so divided as to give us a comfortable sleeping room, about 13½ feet square, and two slightly smaller bed rooms. A dead-white paint finish coupled with simple paper and muslin draperies made the rooms bright, cheerful and wholesome. The furnishings of these rooms were of the simplest, permitting of cleanliness with little labor, and doing away with the volume of dust sure to collect when rooms are overcrowded.

The exterior of the house is of plaster and half timber; the wood being stained a dark green. Dormer windows broke up the roof line, gave more light and space to the upper story, and with their quaint diamond glasses added much to the general structure. The same scheme of diamond panes was followed throughout the house, and on the first story, quaint heavy wooden shutters, instead of blinds, were both ornamental and practical, acting as storm shutters on winter nights and serving well when closing the house for an extended period. Pure white plaster was found trying to the eyes and harsh, consequently, ours was softened into a warm French gray, and blended nicely with the red stained shingles and dark green timbers.

We had our minds set upon using flat field stones for the pergola floor and piazza, but found it difficult and expensive to get this material. We, therefore, were obliged to resort to brick paving. A rubble wall marked the end of the piazza. Then, in order to apparently reduce the height of the house and give it a more cosy appearance, a trellis pergola seemed necessary, therefore, cement columns with a three-inch iron pipe core were erected on the top of wall and on top of these extending to the end of the house were placed cedar poles. The immediate effect of this treatment was most pleasing.

Clinging vines, clematis, grape vines and rambler roses were planted at base of wall and trained about the concrete columns and over the cedar poles, giving both grateful shade to the piazza and character to the house. The same treatment of vines and roses has been carried out about the entire building, at every available point, together with flower boxes placed at the upper windows.

The heating problem threatened for a time to be serious, but was solved most satisfactorily by the purchase of a second-hand furnace, in good condition, which had been found too small to heat a larger house. For our small little home it was plenty big enough, and has given perfect satisfaction; and so, with much careful thought and planning, our home was finished and it is made dear to our hearts, because it is ours—our planning, our building, our home.

The Cost of the House.

House, including painting, about $250, and plastering $400	$3,900.00
Blasting	85.00
Stone	125.00
Brick Paving on Terrace	65.00
Plumbing	75.00
Wiring	36.50
Wardrobes, etc.	48.50
Furnace	130.00
Architect's Commission, 10%	446.50
Total Cost	$4,911.50

New Ideas

A Community of Monolithic Concrete with Unique Solutions of Household Problems

By HERMAN H. BRINSMADE



A PLEASING HOME BUILT AND OCCUPIED IN THIRTY DAYS' TIME

HOUSES of cement poured while you wait. How many rooms of "germ proof," easy housekeeping apartments do you wish poured? This is no Utopian dream of future centuries. It has actually come into existence, nay even passed beyond the experimental stage in the year of our Lord 1911.

Down in the hills of Virginia, not far from Washington, D. C., the first real spotless town of the country, the "germ proof" city has already begun to be "poured."

Clustered together in artistic grouping, their construction and the surrounding grounds blending together in admirable good taste, nearly a score of model houses are already up and occupied to the amazement of the country far and wide, who, cognizant of the revolutionary process employed in their construction, and the remarkably short space of time consumed in their building, regard them as Aladdin-like.

These houses, nearly all constructed at a cost complete, exclusive of land, of about $2,000, are the first effort to put into practice the prediction of that modern wizard, Thomas A. Edison, that, in

the near future, working men would be able to erect cement houses, poured into moulds in a day's time, that would possess many of the luxuries and all of the essential comforts enjoyed now only by the very wealthy, and, better still, at a cost per house of about $1,000 complete.

The $1,000 house of Edison has as yet not become a reality, but its very close prototype is to be found in the Aladdin-like little village that is fast growing up in the Virginia highlands. These wonderful structures were nearly all built in a fortnight's time, inside and out. They required only the services of a capable foreman and seven or eight unskilled negroes, this fact contributing in no small way to the economy of construction.

Believing that a cellar is the breeding place of germs of disease, the architect has eliminated that time-honored part of the building as superfluous. Each house consists of about three rooms on each floor. Each room in the house has a fireplace for the purpose of perfect ventilation. Windows, too, are a striking feature. Each room has an abundance of these and the window frames are set with hinges on the side so as to open with an outward swing, affording a maximum of light.

Of course no germ-breeding paper is allowed. The walls are conspicuous by its absence, but in many cases are tinted a harmonious color. These are essentially "easy-housekeeping" homes, especially adapted for the woman who has no servant. The problem of house-cleaning seems to have been solved to the solid comfort of the occupants. Each room has a cement floor which tilts slightly toward one corner of the room where a pipe in the floor is placed connecting indirectly with the sewer. On house-cleaning day, there is no dust, no fretting or fuming. All the good housewife does is to pile up the furniture in another room from the one to be cleaned. Then with the hose she gives the cement floor of the room a good old-fashioned sousing and the trick is done, the bug-bear of house-cleaning is done away with.

In the kitchen is located perhaps the most surprising contrivance of these Aladdin houses. There a combination range and furnace does double duty in winter of cook stove and the heating plant for the house, the different rooms being piped from the kitchen. In summer a shut-off can be applied so as to eliminate the furnace and provide a cook stove only. The throwing of a lever automatically releases an adequate supply of coal to feed the fire, the coal being stored in a coal bin on the roof. Anothel lever releases the ashes and shoots them out into the outdoor ash can. The sink and all the other equipment of the kitchen are of cement which, like the house, were poured into moulds and thus fashioned into shape.

On the second floor is located an attractive bath room. Here, too, the tub, basin and lavatory are of cement, moulds again having been employed.

The real crowning glory of the house is, however, the roof garden, where real solid comfort and even luxuriousness is attained. The roof garden extends entirely across the house and is adorned with palms and hardy perennial plants. Here one can, if he wish, far above the noise and dust of the street below, in pleasant days of summer, eat out in the open. Another part of the roof garden is fitted up for out-door sleeping, while in the center is a room nearly all of glass for sun room or conservatory in winter.

Viewed from without, these houses are particularly ornate, the plainness of the construction being relieved by window boxes resplendent with green plants all the year round, placed at every window.

The construction of these houses is



THE LIQUID CEMENT IS POURED BETWEEN ADJUSTABLE METAL PLATES AND ALLOWED TO HARDEN

simple and interesting. Steel moulds are required in which the cement is poured and allowed to harden. These moulds cost about $500 per set complete, but the same can be used repeatedly for building other houses. As previously stated, the work of construction need not consume more than a fortnight. The moulds stand rigid as a box girder, every plate being held in line at the four corners. Plates of sheet steel pressed into flanged sections 24 inches square are clipped and wedged together, forming a trough which holds the liquid concrete until it hardens, a second trough is set up on top and filled and the process repeated, the lower plates being moved up as this wall hardens. These plates also serve as forms for floors and roofs. There are no bolts to rust and no cast parts to break, all being held together by steel wedges, locked by a stroke of the hammer and as easily taken down.

It may be interesting to add that these houses are the indirect result of the International Tuberculosis Congress, held in Washington in 1908. At that time a prize was offered for the best plan of house adapted to the needs of tubercular patients. A Washington architect, young and little known at that time, was awarded first prize. His prize winning house is the model but slightly altered that has been developed and used in the erection of the Aladdin suburb of Washington.

This new development is creating widespread attention. To those planning to build homes of their own it opens up new ideas, new possibilities. Many who have investigated it believe that in this or some other similar construction lies the solution of the tenement house evil and the elimination of many diseases due to faulty sanitation. As a possible solution of many perplexing problems, the development will be watched with no small degree of interest, for in it may be the possible foreshadowment of a complete revolution in the building art.

Seasonable Garden Suggestions

By TARKINGTON BAKER

Author of Yard and Garden

MAY is the month for outdoor sowing and planting. Even in the colder sections of the country, flowers may be either sown or planted after the middle of the month. Among the flowers that may be sown in the open, and that will mature and bear bloom before frost sets in, are the following:

Sweet Alyssum
Calendula
Calliopsis
Candytuft
Centaurea, Bachelor's Button
Chrysanthemum, annual
Cosmos, early
Delphinium, Chinese
Dianthus, Chinese pinks
Escholtzia, California poppy
Gourds
Larkspur, annual
Lupins, annual
Marigold
Mignonette
Nasturtiums
Phlox Drummondii
Poppy
Portulaca
Scabiosa
Zinnia.



AMONG THE ASTERS

All these seeds may be sown directly in the beds in which they are to flower. Sow all fine seed on top of the earth, first pulverizing the surface for an inch or more in depth until it contains no lumps, and, following the sowing, press down firmly on the surface with a smooth board. Much is gained by shading the beds for a few days with some cover that will break the fall of rain as well as exclude the hot rays of the sun. Watch the seedlings carefully and thin as soon as possible to prevent crowding. Water, if necessary, with a fine spray, applying the water very gently to avoid washing.

If plans have been started indoors, it will be safe by the latter part of May, if, indeed, not earlier, to transplant to the open ground. Be cautious, however, in transplanting some of the tenderer varieties. It is unsafe, for example, to transplant browalia, coleus, schizanthus, delphinium chinense and maurandya before the last week in May. A late frost

would do all these plants damage, from which recovery would be almost impossible.

There are several bulbs that may be set out in May. The anemones, presenting a variety of colors, may be planted during the month and will come into bloom in July and supply flowers until the middle of September. Caladiums, well known to all gardeners, grown, of course, for their foliage, should be set out in May in rich, deep, well drained soil. The summer hyacinths, hyacinthus candicans, should be planted in generous quantities and always in groups. They bloom from July to October, and, with heavy protection in winter, prove hardy. In many sections of the country montbretias also prove hardy when well protected; they should be planted this month. Dahlias, gladiolus, tuberous begonias (transplanted), tigridias and tuberoses also should be set out by the middle of the month. In planting gladiolus it is best to make plantings a week apart to insure a succession of bloom.

Among the best flowers for the amateur's garden is the matricaria, better known, probably, as feverfew. It is a hardy annual and may be planted as early as possible in May, or small plants may be obtained from the florist and set out May 15. It succeeds in any garden soil and is an excellent bedding plant, showing its small white blossoms, profblooming until frost. A mass of it, produces an admirable effect.

Another excellent annual is the zinnia. A bed of these—easily raised from seed—presents a gay aspect until the first killing frost. Zinnias are to be had in many varieties, varying in color and height, and they are among the easiest annuals to raise.

Do not be in a hurry to set out the dahlias. Make sure that the ground is really warm before the tubers are planted, even if planting is delayed as late as the last of May. Select a well drained position, where the plants will receive the full benefit of the sun's light the greater part of the day, and so far as soil is concerned avoid stiff clay. The earth in which dahlias are to be set should be deeply spaded and with it should be incorporated a liberal amount of well-rotted stable manure. If the gardener obtains plants already growing—not the dormant roots—remove the weakest shoots before planting. Give the dahlias ample space, planting no closer than three feet. As soon as the plants attain a height of ten or twelve inches, provide stakes and tie the shoots to these at once.

Soil for asters must be thoroughly cultivated. Any extra pains with beds for these flowers amply repay the gardener with increase in size and quantity of bloom. The aster thrives best in a deep, rich loam and, being a somewhat gross feeder, does best when there is a liberal



BOLTONIA ASTEROIDES

supply of well rotted manure mixed with the soil. Asters should never be grown in the same soil twice in succession. Seed sown in May will provide bloom in August and later. If earlier flowers are wanted, unless the gardener has started his seed indoors, plants should be purchased. To insure success, aster beds must be frequently cultivated and, if large flowers are wanted, the plants should not be set closer than twelve inches. This space, of course, may be reduced if quantity of bloom is the object to be attained. If the plants, after a few weeks in the soil, begin to look sickly, lift one or two of them and examine the roots. They are sometimes attacked by an aphis or louse and the presence of these pests can be determined by examining the roots. If they are present, apply tobacco dust, a small handful to each plant, working it deeply into the soil.



ASTERS

Stem-rot is another enemy of the aster and is to be combated only through the application of powdered sulphur or dry Bordeaux. Sprinkle the powder over the plants. The black beetle, the most serious enemy of the aster, can be checked only by hand-picking. Go over the plants carefully, picking off the insects and dropping them into a basin containing kerosene. It is always best, a week or two after asters are set out or the young plants have made vigorous growth, to sprinkle the surrounding soil with wood ashes. Wood ashes may also be incorporated with the earth when it is spaded and the plants will be all the better and healthier for the addition of the fertilizer. Air-slaked lime is also an excellent substance to broadcast over the bed.

Roses should be sprayed three times in May. The first application should be to prevent mildew. About the middle of the month, or when the buds set, spray with whale-oil soap, one pound to eight gallons of water, to hold the aphis in check. About the last of May spray again to guard against mildew.

Prune such shrubs as have bloomed —forsythia and various forms of the early-flowering spiraea. This pruning should consist of removing small branches that have borne flowers.

When a lawn is overrun by weeds—dandelions, plantains, docks or weed grasses—and it appears that the eradication of these will practically destroy the lawn surface, it is best to begin by using at once the spade or the plow.

But if the grass is not attacked by these weeds and the soil appears to be in a good state of cultivation and of a proper depth, it is probable that the problem can be solved by loosening the surface soil with a steel rake and sowing seed.

CASEMENT-WINDOWS

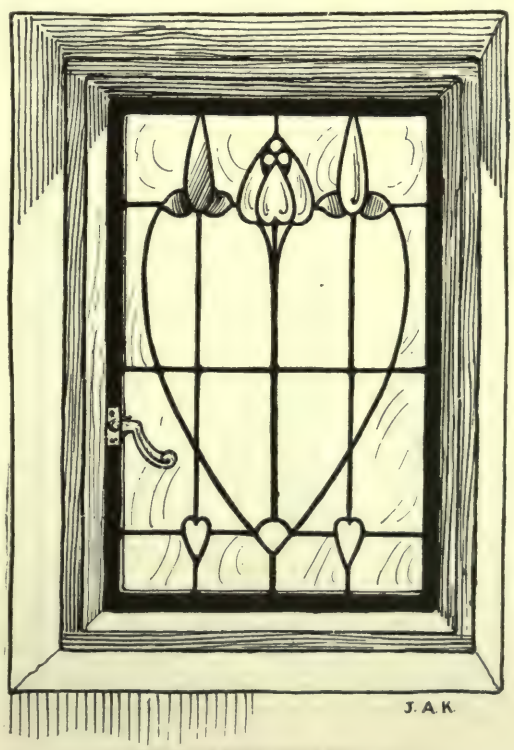
THEIR ARTISTIC AND PRACTICAL VALUE FOR THE HOME BUILDER



WRITTEN AND ILLUSTRATED BY JOHN A KNOWLES.

THE field of stained and leaded glass is so vast, ranging from the "storied windows richly dight" of our cathedrals and churches to the illuminated leaded glass advertising signs of the "Great White Way" that it is impossible to more than touch on one aspect of the subject at a time and that only briefly. In Keith's Magazine for May, 1910, we considered leaded glass in its application to different styles and periods of architecture with special reference to its suitability for the different rooms of the house and their various requirements, and now I propose to discuss not so much any particular period or style of leaded glass, as a special method of fixing it in the window openings so as to obtain the utmost benefit from both an artistic, useful and hygienic standpoint, viz.: in wrought iron casements.

Anyone who has taken even a superficial interest in home-building, either through having built a home for himself or noticing the efforts of his friends and neighbors in striving after the useful and artistic in this direction during the last decade or so, must be struck by the great change that has taken place, not only in planning but also in greater simplicity and refinement in the outward appearance of modern homes, and this without any sacrifice of comfort, but rather the reverse, the home of today being both more comfortable to live in, more artistic and more hygienic than that of twenty or thirty years ago, and this in a great measure due to the growth of the movement called "Mission" or "Arts and Crafts," such as was preached by William Morris and carried forward

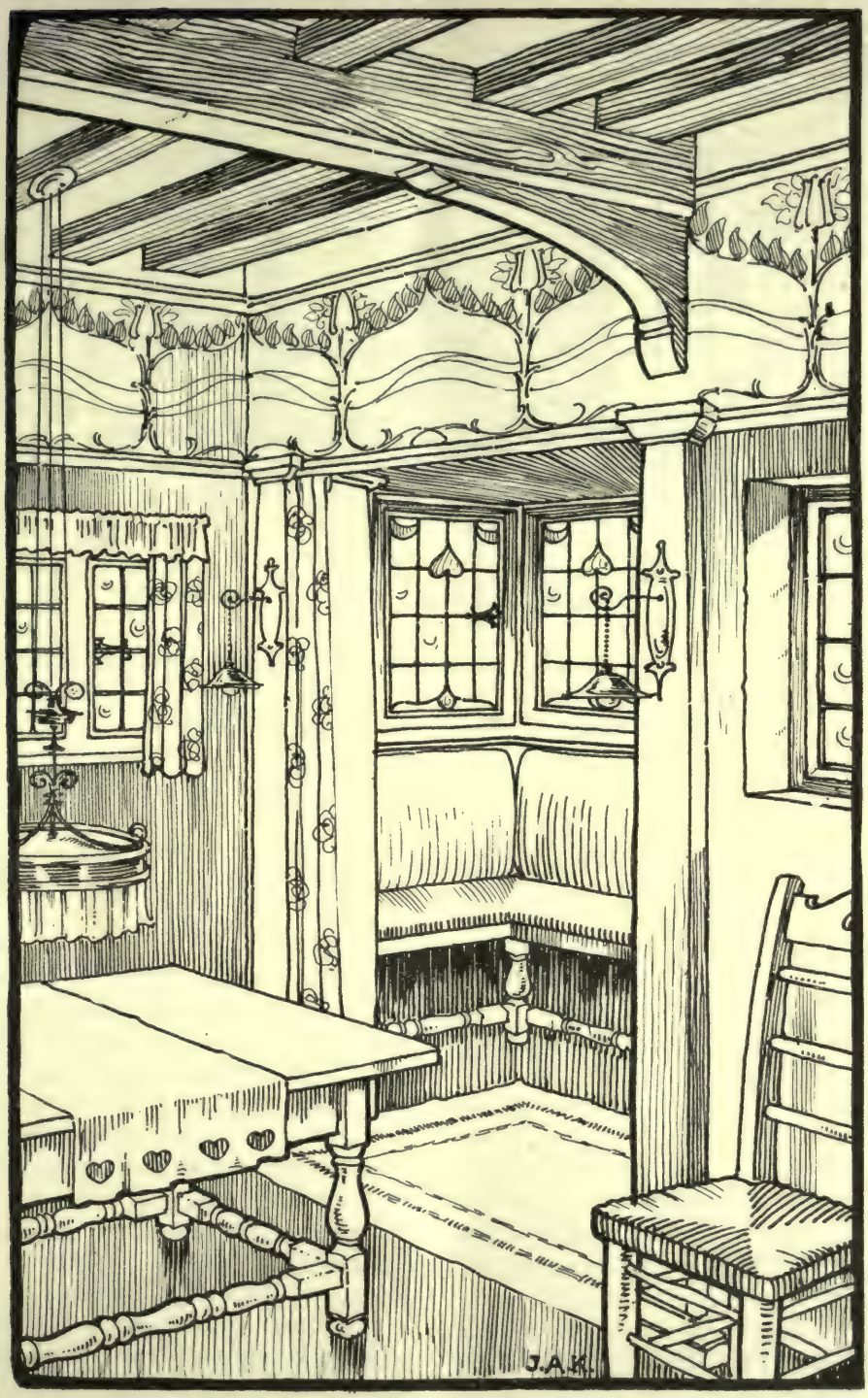


CASEMENT WITHOUT FRAME

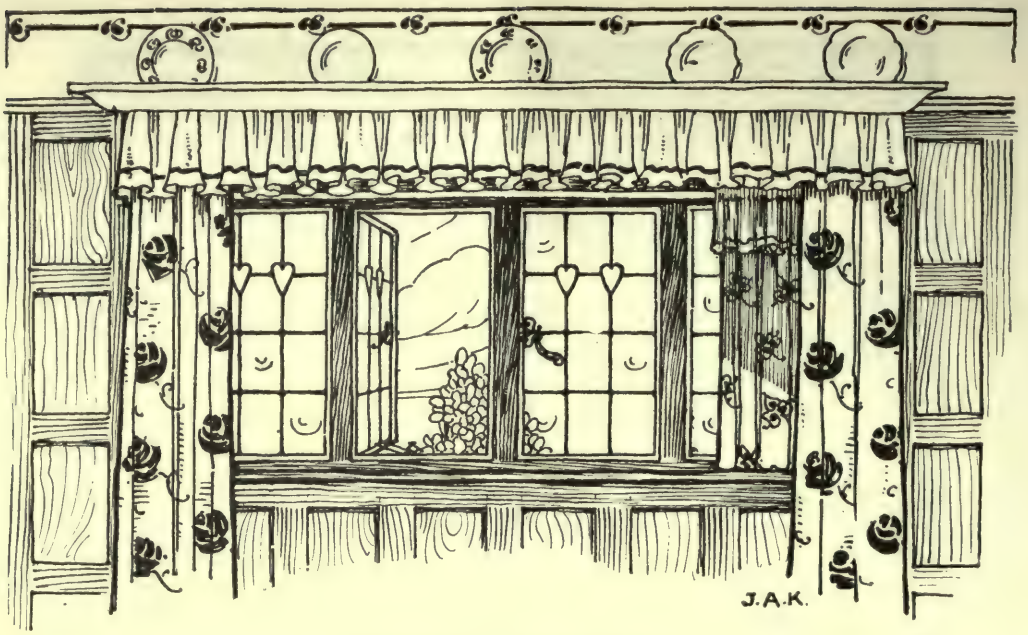
by many of our most prominent architects. Gone is the fretwork and such like rubbish from the fronts of our homes, along with many another old and out-of-date form of decoration, such as characterized the houses built some years ago, and everything now tends towards utility, harmony, proportion and restfulness, and so, since every feature of the house has come under the influence of the Arts and Crafts movement, our windows too have had to conform to the new order of things, and arrange themselves in conformity with modern ideas, so now instead of being one sash above another in a perpendicular manner, they have been placed side by side, sometimes three or four, or more, and besides looking much better in this way, there is a good reason for their being so placed and that is just this. A window is not only to admit light, it is often wanted to look out of, and see what occurs without the house, and our eyes are not placed one above the other but side by side, and so our windows should be too. Besides this, the windows often come under the low over-hanging eaves which prevail to a great extent in this style, and so besides adding greatly to the appearance of the house, they shade the windows without having to resort to drawn blinds during the greater part of the day allowing the casements to be open, to ventilate the rooms, without any fear of having our carpets and hangings ruined by the sun. And so by gradual process we come to the utility and artistic qualities gained by having metal casements to open on hinges instead of the old sliding wood sash with cords and weights which are always getting out of order, never look really well and have little but their antiquity to recommend them, besides which when glazed with leaded lights this can only be seen when the window is entirely shut, otherwise the bottom sash sliding up over the top one or vice versa causes the design to become practically nil as far as artistic qualities are concerned, as it is of course impossible to make out much of the design when one is on top of the other. There is, of course, nothing new in the idea of metal casements as they were in common use during the Elizabethan period but after that they died out and it is only during the last few years that they have come again into common use, but once the advantages they possess are understood it will be not long before they are more commonly used in houses built along Mission lines. The general appearance of a casement will be readily seen by the illustrations, and it is nice to know that besides giving a feeling of quaintness to a room such as could not be obtained by



A METAL CASEMENT OPENING OUTWARD



A COZY CORNER IN LIVING ROOM WITH CASEMENT WINDOWS



CASEMENTS IN A DINING ROOM

the old style of window with one light above another they have qualities besides which should weigh with the careful home-builder in that they do not rot or sag, nor let in rain nor draught, and in the case of those made to open outwards which is the most general way, the storm sash are fixed in a rebate provided in the sash on the **inside** of the window with the happy result that on fine days the window can be completely opened and the house aired, a thing devoutly to be wished by many a housewife but unobtainable when the storm sash are fixed outside. The casements made nowadays are wrought iron frames which is screwed into the frame of the window and in which another wrought iron frame or "door" swings on hinges either at the side or at the top carrying the glass, and it is provided with a "weather bar" made of zinc to keep out all wet along the bottom and has a gun metal opening bar and quaint gun metal handle and latch for opening and closing. Sometimes they are made without the iron outside frame and hung simply by hinges to the wood window frame, but on the whole the former type are generally found most satisfactory as there are no screws going into the wood for the hinges to become loose or cause sagging. Window cleaning where there are casements is a simple matter, as one has only to open one and clean the outside of the other, and then reverse the process, whereas in the old style of sash sliding one over the other, a ladder had often to be brought in requisition and this necessitated the services of either the owner of the house or a "handy man," whereas with casements the work is easily done without even a pair of steps, by the maids. Of course casements do not necessarily have to be made of iron or steel, as they can be made of wood, yet the former are preferable for several reasons, mainly, they never sag or tighten so as to render them awkward for opening, nor do they rattle on windy nights, a serious fault of sliding sash, besides which the iron casements are far less clumsy in appearance than wooden ones as they are made lighter, and so the width of the mullion

is far less, and the lights come closer together, making the appearance of the window from within more trim and neat as well as letting in more light. The leaded lights for windows of this description should be glazed as far as the straight lines are concerned, with steel-cored lead which looks exactly like the ordinary leads or cames but has a small flat steel bar concealed in the "heart" of the lead which stiffens it immensely, so much indeed that external stanchion bars are rendered unnecessary, which were always ugly and interfered with the windows being easily cleaned, as the duster was always catching in the copper ties, besides which the continual "banging" shut of the windows soon caused the lights to bulge and break the glass which with this lead is impossible. When the lights are glazed with plain squares or diamonds, it will be sufficient if the steel-cored lead is used every other horizontal or vertical line as the case may be. The lights could of course be glazed with glass set in "metal sash" but the lead gives a wider line and generally a quainter effect, and one measuring about five-sixteenths of an inch across the face is generally about what is wanted.

Construction Details of the Home

The Porch.—The Cornice, Arrangement of Columns, Balustrade and Details

By H. EDWARD WALKER

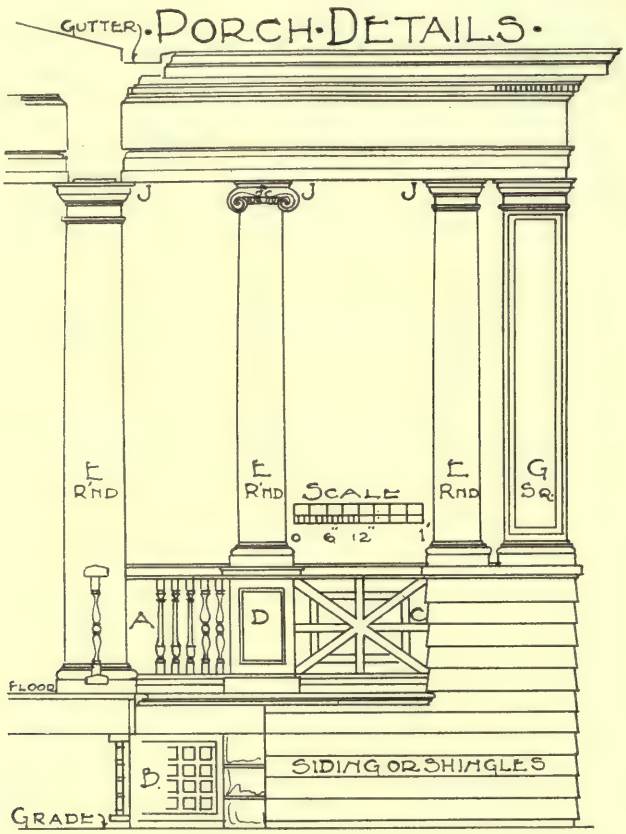
THE details shown in the drawing are Colonial in character and are often seen in residence architecture. Usage rather than purity of architectural style is indicated, the latter being left to more technical works upon the subject. The entablature with its architrave, frieze and cornice is outlined showing the various mouldings and the gutter. The columns are shown in different sizes and arrangements. Those lettered E are round and the pier G is square with paneled sides. The larger column starts from the floor and the balustrade is cut between. The remaining columns and the pier start at the top of the balustrade. D is a pedestal that may properly be used to support the column while at C the sidings or shingles are carried up to the top of the rail. The "filling" between the upper and lower rails of the balustrade shown at C is to be repeated to fill any given stretch of rail between columns and if not too coarse and open makes a very good composition. The balusters shown at A are in two styles spaced about two-thirds of their width apart. On cheap houses, balusters are usually too far apart. Their exact outline and detail is best left to the architect who will produce a better effect in all these items if allowed to use the judgment which his education has made possible. If the home-builder has seen fit to dispense with the services of an architect he must use his own uneducated judgment and select something from what the factory has to offer. At B is shown a simple lattice effect as a filling beneath the porch. Three courses of stone are shown adjoining supporting the pedestal and column while at the

right the siding or shingles are indicated, carried to the grade line, finishing upon a footing of cement or stone.

Foundations under columns, piers or steps, should be carried below frost except in very porous soil where the dampness drains away quickly.

be used to advantage about the porch if the rest of the house is in keeping.

These are a few of the methods of treating porches. Instead of the column and pier, E and G, the siding might be carried up to the top or brick might be used.



At J are shown the capitols of the columns. That in the center is Ionic, the others being Doric. Unless of a very plain character, capitols are best purchased from dealers in composition ornaments, because of the excellence of their modeling and moderate cost. Almost any conceivable design can be obtained, making it especially important that the selection be made by a person understanding design. Bungalow cornices may

Screening the Porch.

If the porch is built up with rectangular openings as is the case when brick or cement piers are carried up, the problem of screens is an easy one. The screens are set in a simple frame to fit the openings.

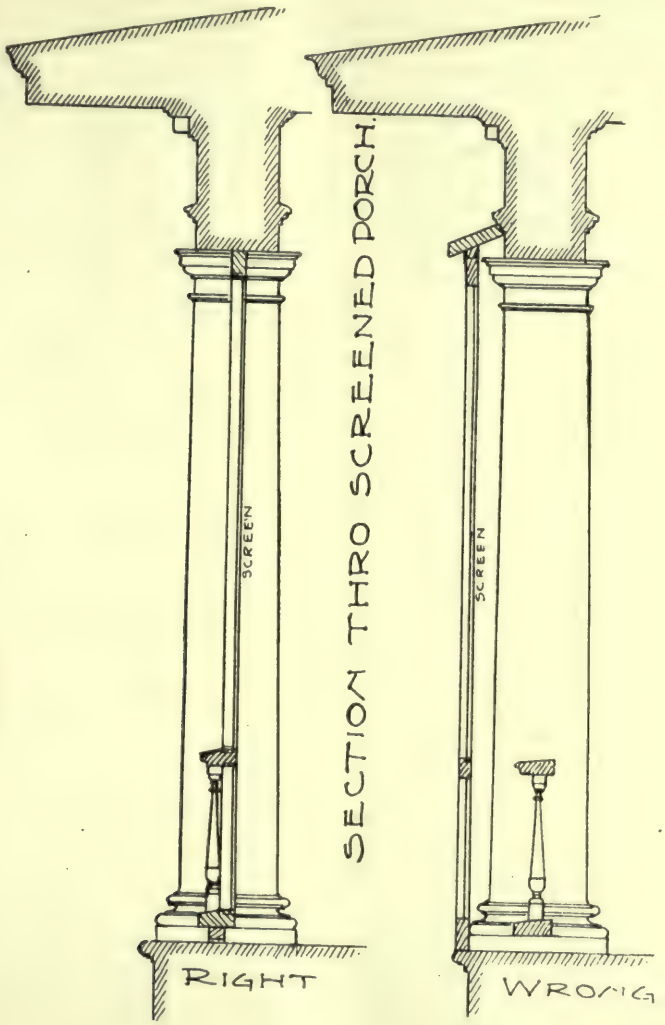
Where columns are used the mistake is often made, putting the screen outside the columns as is shown in the illustration marked wrong. The columns, ex-

pensive in themselves, are obscured and might better have been simple posts if the screen is to be outside.

The right way is shown with the screen placed between the columns from the soffit to the top of the top-rail. A smaller screen is placed behind the balusters and below the bottom rail is a small filler of wood containing small holes at intervals to provide for drainage.

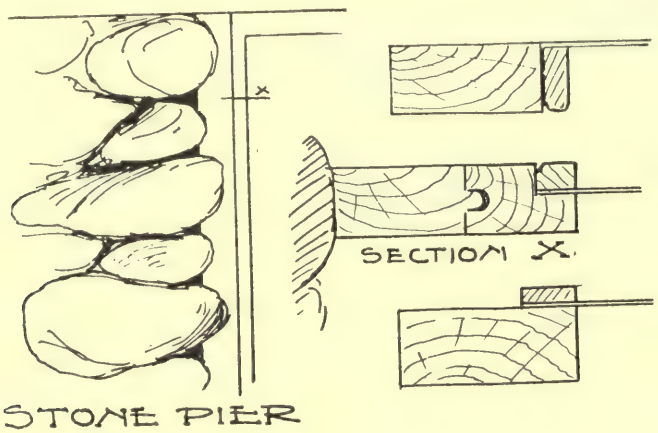
To screen an opening built up with cobble stones take a piece of dressed and matched fencing wide enough, and cut it to fit the indentations between the stones. Retain the tongue on the edge toward the frame of the screen in which is plowed a groove to receive the tongue as at section X.

If the indentations between the stones are very deep the fencing may be only partially fitted and the remaining space neatly filled with cement, using the board as a guide to the trowel on each side. The cut shows the stone pier and three methods of attaching the wire to the frame.



Wire Screen.

The best wire cloth to use is made of galvanized wire. It costs a little more than black painted wire cloth but is almost entirely rust proof and lasts so much longer that it is cheaper in the end. The greatest width is 52 inches but 48-inch is easier to get. Uprights should be just as few as good construction will permit that the view may be obstructed as little as possible. Copper wire is used but its cost is prohibitive. Full length screens for windows are best because the sash can be placed in any position for ventilation.



Comparative Cost of Exterior Walls

Siding, Shingles, Cement, Brick, Tile

BY THE EDITOR

THE uppermost question with the home-builder is how to build as well as possible and make the best use of the available funds for the purpose. The writer's purpose in this article is to place before the home-builder the situation on comparative costs for outside wall construction, as it is found to be today and thereby assist him in securing the best return from his buildings funds. The tables of costs given are the result of much investigation and study of the proposition and from interview with architects, contractors and building material men. Their opinions, figures and statements are the basis of the tabulations, so that the information is from authentic and practical sources.

There will be found many surprises no doubt, for the layman and architect as well and certainly the subject so vital to the interests of all, will be followed with much interest. The homebuilder today looks into methods of construction, the value of building materials and the newest things on the market, a good deal more than he did some years ago. He is not so much the novice in these matters and doesn't, perhaps, feel so entirely helpless before the opinions of the architect and builder. It, therefore, behooves the profession and the trade to keep strictly abreast of the times.

Taking the country as a whole, particularly outside of the metropolitan centers, it will probably be agreed, that lap siding has been, and is today, the material most generally used for exterior work on residences. In certain sections of the country brick is used as generally as siding, but for a great many years siding has been the cheapest material and the building trade has become so accustomed to using it that today, while other forms of wall construction are less expensive and equally as satisfactory, if not more so, yet the average builder will no doubt figure that he can build a house cheaper and use siding than any other material.

In the southern portions of the United States and in California, stucco and also shingles to some extent, particularly in the Western states, are very generally used. You will find stucco houses scattered all over the country today, from coast to coast. Such an exterior is as satisfactory for cold climates as well as in the South, but because of the general use and popularity of siding for outside walls, we will use it as a basis of our comparisons against other materials. The figures will be those as given to us by local authorities in Minneapolis and to apply the information in this article to the conditions in any locality, it will, of course, be necessary to add or deduct the difference in cost of the materials considered and the prices for labor, from these tables. The question before us, then, is "What shall the exterior be?"

SIDING.—This is an old and reliable material and it is run from white pine, cedar and cypress. The present market price for white pine siding, "C" grade, is $31.00 per M. This price is $14.00 per M. higher than ten years ago, or an increase in the cost of 82 per cent, and the market price of cedar and cypress siding is about the same. The frame construction will be the same whether siding, shingles or cement exterior is used and we will take a unit for these comparisons of 100 square feet area, or, as termed in the building trade, one "square" and to make the figures as near accurate as possible, we have taken an average from the figures of seven responsible builders.

Cost of One Square of Siding.

Siding material at $31 per m, standard	$3.88
Carpentry labor, 4 hrs. at 45c	1.80
Nails, 2 lbs. 6d at 3½c	.07
Painting, three coat work	2.90
Total cost of labor and material per sq.	$8.65
Contractor's profit 10%	.87
Total cost to owner per square	$9.78

Cost of One Square of Shingles.

4-5 M. Red Cedar Shingles at $3.25	$2.60
Carpentry labor, 5½ hours, at 45c	2.48
Nails, 3 lbs., 4d, at 4½c	.11½
Stain and labor dipping	2.50
Total cost of mat'l and labor per sq.	$7.69½
Contractor's profit 10%	.77
Total cost to owner per sq.	$8.46

CEMENT.—Taking up the consideration of a cement exterior wall it is found that there are today several different kinds of lathing which can be used with entire satisfaction. There is the metal lath which is usually put on over furring strips place 8 in. on centers, nailed against the sheathing boards. This gives an air space between the cement and the sheathing boards. There is the patented woven wood lath, which is so constructed that it is self-furring and is nailed directly against the sheathing boards. There is the plaster board which is also nailed directly against the sheathing boards, and the same is true of a patented lath sheathing, which material comes from the factory shipped in crates of 16 sheets per crate each, 4 feet by 4 feet square. It is made up of lath imbedded in asphalt, which is surfaced with cardboard. The lath surface is placed outward and either siding or cement stucco may be applied directly to it.

The use of Portland cement as an exterior covering for residences is, of course, no new experiment, and the material has come into very general use all over the country. It is entirely reliable and permits of exceedingly artistic architectural results. It is very commonly used over the entire wall, making what



Chas. S. Sedgwick, Architect

EXTERIOR OF HOUSE USED TO ILLUSTRATE COMPARATIVE COSTS

is known as an "all-cement exterior." It is used equally as much in panel or English half timber work and in combination with brick or shingles. The latter material used generally as the wall for the first story with concrete belt course above, or in English designs, running into the gables of the house. One of the most frequent inquiries from prospective builders is: "Does a cement house cost as much or more than a frame house?" and the readers' answer to this query is given in the following table from which the comparative cost can be quickly seen.

Cost of 9 Squares or 100 Yards Cement Exterior.

Galvanized metal lath material	$25.00
Labor putting on furring strips	6.00
Labor for lathing	6.00
Labor for plastering	30.00
Portland cement, 8 bbls	16.00
Crushed rock	1.50
Hair, sand, lime	4.00
Total cost	$88.50
Contractor's profit 20%	17.70
Total cost to owner of 100 yards	$106.20
Total cost to owner per square	11.80

Coated metal lath costs eight to nine dollars less per hundred yards, and if used could reduce the cost to owner per square to $10.80.

If plaster board is used in place of the galvanized lath, the cost per hundred yards is estimated at $16.00 less, using patent plaster instead of cement, which brings the cost per hundred yards to the owner to $88.00, or cost to the owner per square, $9.78.

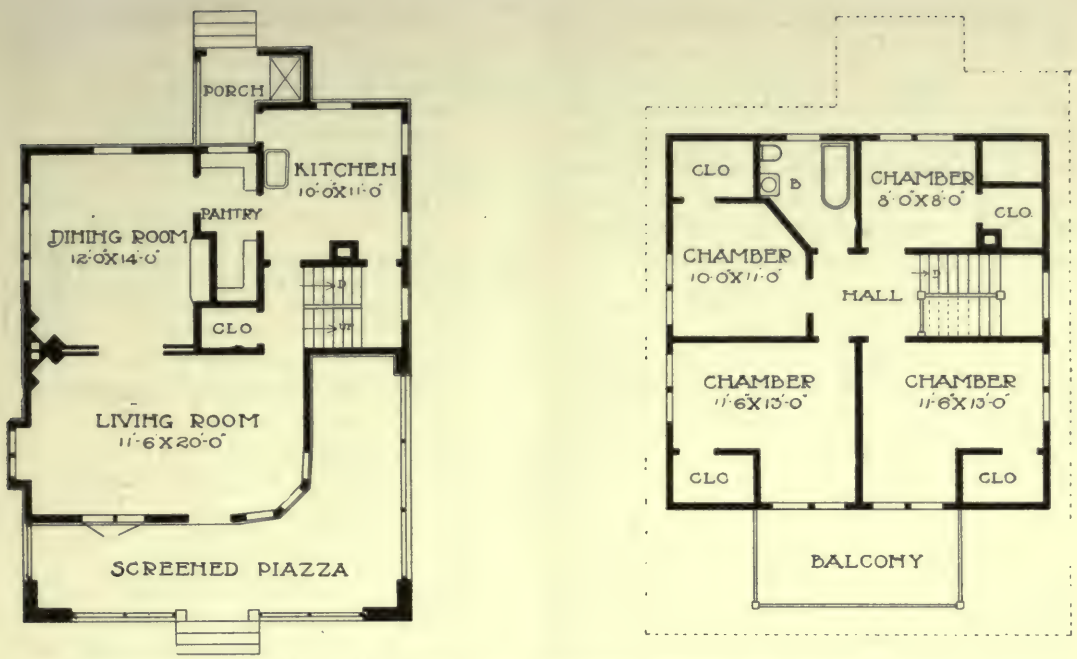
If patented lath sheathing is used in place of galvanized metal lath, the cost per hundred yards is estimated at $7.75 less, which brings the cost per hundred yards to the owner to $98.45, or cost to the owner per square, $10.94.

If patented woven wood lath is used in place of galvanized metal lath, the cost per hundred yards is estimated at $25.00 less, which brings the cost per hundred yards to the owner to $81.20, or cost to the owner per square, $9.02.

Recapitulation.

Cost per Square for Exterior Wall.

In siding	$9.75
In shingles	8.41
In cement-galv. metal lath	11.80
In cement—coated metal lath	10.80
In cement—plaster board	9.78
In cement—patent lath sheathing	10.94
In cement—patent wood lath	9.02



PLANS OF HOUSE USED TO ILLUSTRATE COMPARATIVE COSTS

BRICK AND TILE VENEER.—The figures given above are based on a blank wall, or as the house would be without openings, for the reason that in estimating materials and labor, it is customary to assume that the waste required by the openings will be an offset to the additional material that would be used. This applies in all cases excepting where the opening is equal in size to one square. In the case of brick veneering, steel lintels or masonry caps, or both, are required and an additional amount must be figured for the masonry sills. Window and door frames need not be considered in the estimate on brick veneer work any more than frame construction, for they are required, of course, in either case. In these figures we therefore use the standard estimate of 750 brick to a building square.

Cost of One Square of Brick Veneer.

750 common brick at $9.00 per M.....	$6.75
Labor and laying, including mortar, at $15 per M.	11.25
Total cost per square	$18.00
Contractor's profit 10%	1.80
Total cost to owner per square.....	$19.80

There are many kinds and varying grades of facing brick. The labor item or cost of laying will vary in accordance with the required method of jointing and will increase, of course, with the care required in laying up the wall. As there are so many different prices for the different grades of brick, we will simply confine ourselves to two grades, as shown in the tables below:

Cost of One Square Sand Mold Brick Veneer on Frame.

750 brick at $22.00 per M.	$16.50
Labor and laying, including mortar at $15 per M.	11.25
Total cost per square	$27.75
Contractor's profit 10%	2.77
Total cost to owner per square.....	$30.52

Cost of One Square High Grade Face Brick Veneer on Frame.

750 brick at $35.00 per M.....	$26.25
Labor and laying, including mortar, at $20 per M.....	15.00
Total cost per square	$41.25
Contractor's profit 10%	4.12
Total cost to owner per square.....	$45.37

A very recent addition to our building materials, and which may be used either

as veneer on frame construction or the facing of a solid wall, is interlocking hollow tile for exterior work. It is a tile which measures 12⅝x4x4⅛ inches. Has a very pleasing and artistic glazed effect. and is becoming quite popular. In order to estimate the number of tile which would be required for the building of a square, we will use brick measure:

Cost of One Square of Interlocking Hollow Tile.

Tile—750 brick measure at $14 per M...	$10.50
Labor and laying, including mortar, $15 per M.	11.25
Total cost per square.....	$21.75
Contractor's profit 10%	2.17
Total cost to owner per square.....	$23.92

Recapitulation.

Cost to Owner per Square for Exterior Wall

Common brick veneer	$19.80
Sand mold brick	30.52
Face brick	45.37
Interlocking hollow tile.....	23.92

We illustrate in this article a good example of a moderate priced house, the design of which permits the use of any one of the forms of exterior construction which we have described. It is a house with an average of 28 lineal feet in width by a height of 14 feet from the top of foundation wall to the underside of cornice. The front piers are 3 feet wide. The rear elevation would be the same as the front in area, excepting that the rear projection contains 84 more square feet. The sides are 38 feet against a height of 14 feet to the gables. We will not consider the figures for the dormers, for the reason that they would not be finished with all of the materials which are under construction. The whole results in a total of 2,614 square feet of exterior wall, or approximately 26 squares. Taking the total cost of the exterior wall for the house shown for each of the forms of construction, we have the following result:

Total Cost of Exterior Wall.

1	Sided exterior	$254.28
2	Shingled exterior	219.96
3	Cement exterior over woven lath	234.52
4	Cement exterior over plaster board	254.28
5	Cement exterior over coated metal lath	280.80
6	Cement exterior over patented lath sheathing	284.44
7	Cement exterior over galv. metal lath	306.80
8	Common brick veneer exterior...	514.80
9	Interlocking hollow tile exterior..	621.92
10	Sand mold brick veneer exterior..	793.52
11	Pressed brick veneer exterior.....	1,179.62

Taking a sided exterior, at 100 per cent, the comparative cost percentages are:

No. 1—100%	No. 7—121%
No. 2— 87%	No. 8—202%
No. 3— 92%	No. 9—244%
No. 4—100%	No. 10—312%
No. 5—110%	No. 11—464%
No. 6—112%	

Applied to our accompanying example of residence containing 26 squares of exterior wall, which house we will estimate to cost, sided, $3,200, exclusive of heating and plumbing, we arrive at the following percentage cost.

No. 1—Cost 100%
No. 2—Cost 1% less
No. 3—Cost ⅝ of 1% less
No. 4—Cost 100%
No. 5—Cost 1% more
No. 6—Cost 1 1-10% more
No. 7—Cost 1⅝% more
No. 8—Cost 8 1-10% more
No. 9—Cost 11½% more
No. 10—Cost 17% more
No. 11—Cost 29% more

The prices and conditions have been stated so plainly that it should be an easy matter for any prospective builder, architect or contractor, to compare these prices with those prevailing in any given locality and to quickly arrive at a cost estimate for outside wall construction in the locality where the building is to be erected.

Any letter of inquiry on this subject will be cheerfully answered. Next month we will continue this subject, taking up solid wall construction.

Designs for the Home-Builder

Design B 241.



HIS house of stained shingles and cream painted trim is very attractive. The breadth of entrance porch is an interesting feature giving an air of hospitality. The large reception hall with its fireplace and open stair will appeal to many. The parlor and dining room also have fireplaces and three chambers upstairs, making six in all. A rear hall connects the kitchen with the reception room, for attendance at the front door, and the butler's pantry with the dining room. A large lavatory is conveniently located.

The finish is birch in mahogany stain for the main room, natural in the kitchen portion and enameled in the chambers. Birch floors throughout. Hot water is used for heating and the basement provides laundry and ample storage space. No size is given, but that portion of the house that is full two stories is estimated to be 34x28 feet. This does not include one story kitchen portion or porch front and rear. Built with as many fireplaces the cost would be $5,000.

Design B 242.

This is a home in the English style but possessing an American porch 14 feet in width. The living and dining rooms are of magnificent proportions, each with a beamed ceiling. There is a pantry and a kitchen of good size, well appointed. Every room in the house, except kitchen and bath room, contains a fireplace. The main rooms are finished in English oak and the chambers in birch and white enamel. The basement is complete with laundry, hot water plant, fuel and vegetable storage, etc. No size is given but the house is about 36 feet by 34 feet deep, exclusive of projections. Such a house should be built for $8,000. The many chimneys add considerably to the cost.

Design B 243.

There is a peculiar charm about this design with its simple roof lines and quaint details. The clinker brick, stucco and stained shingles are in splendid harmony and artistic contrast. The arrangement of terrace and sun porch is well conceived giving prominence to the front door and ready access to the porch. The living room is of splendid proportions and vistas may be had through columned opening, of sideboard in dining room and fire place in den. The stair is not made a feature of the house but is conveniently located. In addition to kitchen, pantry and rear vestibule, the bath room and one chamber are placed on this floor.

The finish of the principal first floor rooms is plain white oak. All other finish is of birch. Three chambers, a sleeping porch, numerous closets and a store room are found on the second floor. The house is 30 feet by 36 feet, without projections of porch or kitchen. The architects state that the cost was $6,000 complete with plumbing and hot water heat.

Design B 244.

This house is of the quaint picturesque type with a pergola in front, opening upon the living room. This room is 15 feet by 25 feet and contains a fireplace and ceiling beams. The dining room, pantry and kitchen are conveniently arranged. The refrigerator is located in the rear entry. Finish, oak and birch with floors to correspond.

Four chambers and two bath rooms are provided on the second floor, finished

in birch and white enamel. The attic is lofty and of good floor space. The basement contains the hot air furnace, laundry and storage rooms. The walls and floors are of 8-inch hollow tile and the partitions are of 3 and 8-inch tile. The walls are finished in gray stucco and are waterproofed but not furred. The roof is of asbestos shingle. This makes a practically fireproof house. It would be difficult to add anything to make it more so. The size is 36 feet by 36 feet and the cost is estimated at $7,000. This could be materially reduced if frame construction was used with stucco veneer.

Design B 245.

This is a well planned house with exterior walls built of 3-inch hollow tile above grade and 12-inch tile for basement. The interior walls and floors are of wood and the roof shingled.

The fire resisting qualities of tile are bringing it more and more into use each year and as wood grows scarcer the difference in cost becomes constantly less. There is a splendid living room with beamed ceiling and a fireplace. The den is located in close proximity to the front door. A sliding door separates the living room from the dining room which also has a beamed ceiling and communicates with the kitchen through the pantry. A rear porch is reached through French doors where the table may be set. The entry affords space for a refrigerator. Oak floor and finish is used in the principal rooms of the first floor and birch with maple floors in the kitchen portion.

There are four chambers of good size and a bath room finished in white enamel. There is a fair sized attic and the basement contains the laundry, vegetable cellar and hot water heating plant. The house is 30 feet square, exclusive of porches, and cost about $5,500.

Design B 246.

This house has a splendid living room, features of which are the fireplace of brick and the stair and seat at opposite ends. Through the wide cased opening a view is obtained of the dining room with its sideboard and casement windows. The pantry, kitchen, entry and cellar stairs are all well arranged for efficient service. The main rooms are finished in red oak after Craftsman ideas and elsewhere Washington fir finish is used. The floors are all of birch. The second story contains three chambers, a bath room and a balcony which would make a good sleeping porch. The exterior is in stucco veneer. Either furnace or hot water heat may be used. The size is 26 feet by 28 feet and the architect's estimate of cost, without heating or plumbing, is $3,800. Present prices would probably run this up some in most localities.

Design B 247.

A house in the Colonial style for a city lot. The hall, living room and reception room are connected by columned openings.

There are fireplaces in living room, chamber and library and the dining room has a beamed ceiling, wainscoting and a sideboard. The kitchen portion contains two pantries, entry and rear stair.

There is a spacious hall on the second floor with five chambers and a bath room. The birch finish is carried into the second story hall and the chambers are finished in white enamel. The attic is spacious, containing billiard room and maid's room. The laundry is well appointed and there is ample space for storage.

Hot water heat. Size, 36 feet by 49 feet. The art glass on the stairway is an attractive feature. The cost was about $7,000.

Design B 248.

This house, of the cement bungalow type, is unusually well planned for the accommodation of a large family. The floor plan shows the absolute privacy of



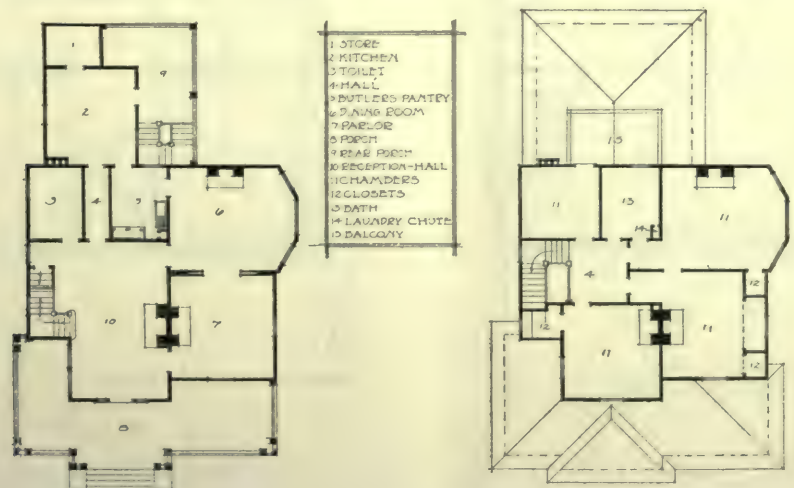
W. C. Northup, Architect

DESIGN B 241

the sleeping quarters from the living rooms.

The kitchen is so arranged that the pantry keeps the odors of cooking from both the dining room and bed rooms. The stairway to second floor is conveniently placed with relation to the living room and at the same time gives access from the second floor bed rooms to the bath without passing through living rooms. Closets are ample and a linen closet with drawers and shelves is provided at head of stairs. There is an attic at rear and a bath room might be located on second floor if desired.

Finish of principal rooms, oak with oak floors, first story chambers and kitchen in birch and the balance in enameled





Paul W. Irwin, Architect

DESIGN B 242

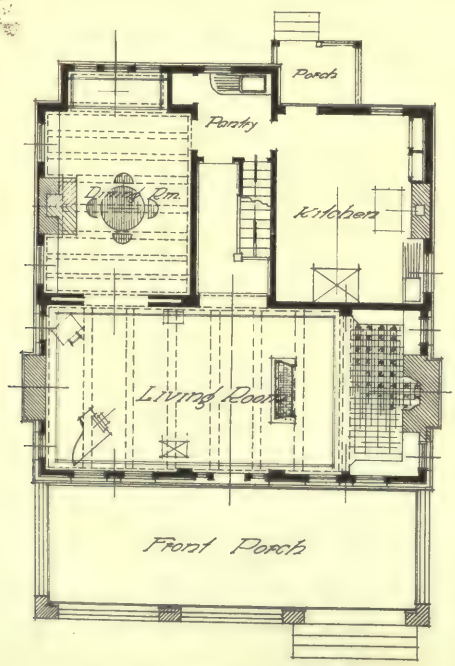
pine with birch floors. Laundry and hot water plant in basement.

Size, 30 by 53 feet. The architect's maximum estimate is $4,200.

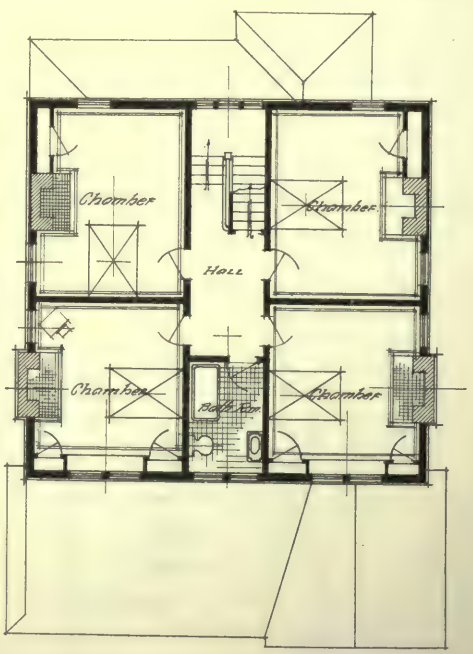
Design B 249.

This design shows a small moderate cost home, which has been arranged so compactly and economically that it can be built for an exceedingly small sum.

Entrance to the sitting room is gained through a cozy little reception hall, and is separated from the hall by a large



—First Floor Plan—



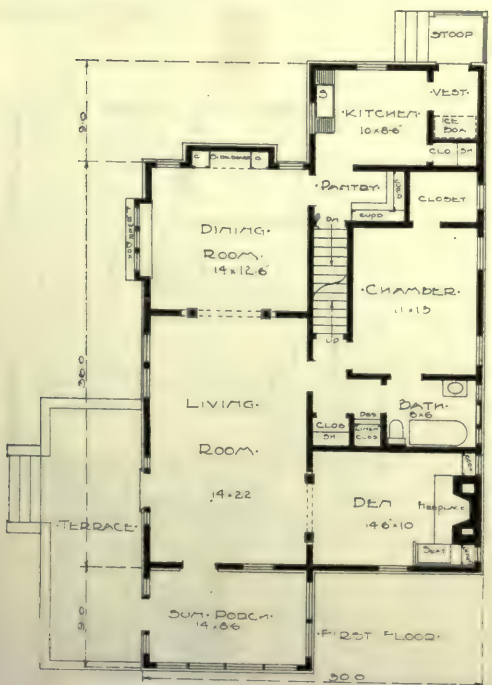
Second Floor Plan.

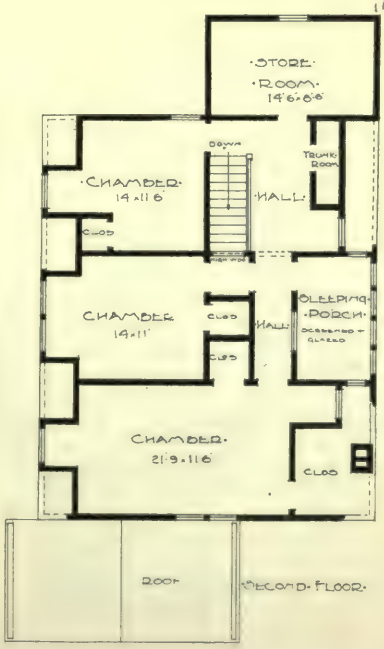


Downs & Eads, Architects

DESIGN B 243

cased opening. This room is of good size, and has an attractive fireplace, the facings and hearth of which are red pressed brick. A cased opening also separates the sitting room from the dining room. (Continued on page 332)



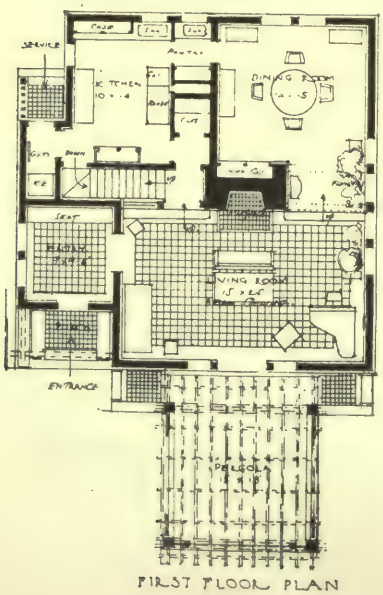




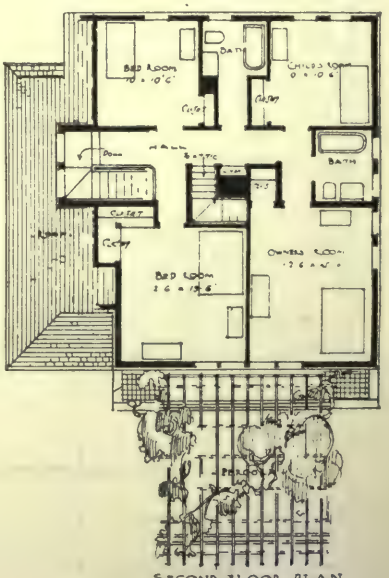
Courtesy of National Fireproofing Co.

Squires & Wynkoop, Architects

DESIGN B 244



FIRST FLOOR PLAN



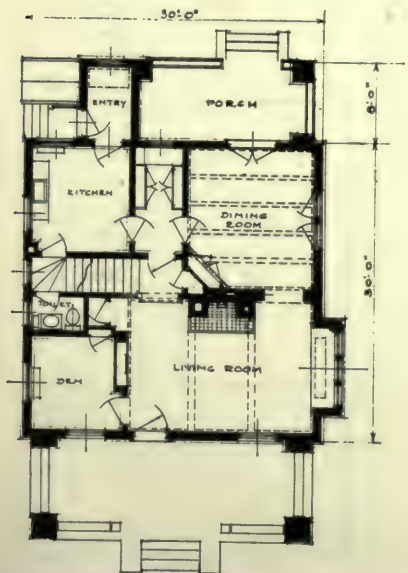
SECOND FLOOR PLAN



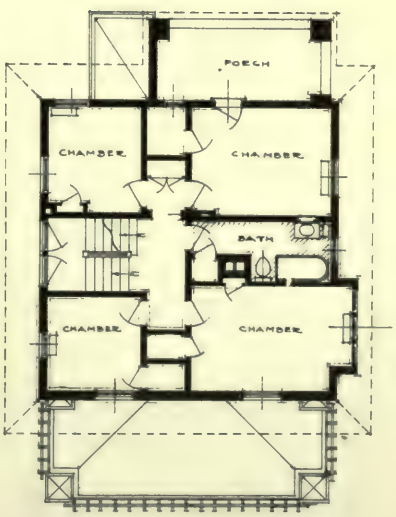
Courtesy of National Fireproofing Co.

Elmo Cameron Lowe, Architect

DESIGN B 245



• FIRST STORY PLAN •

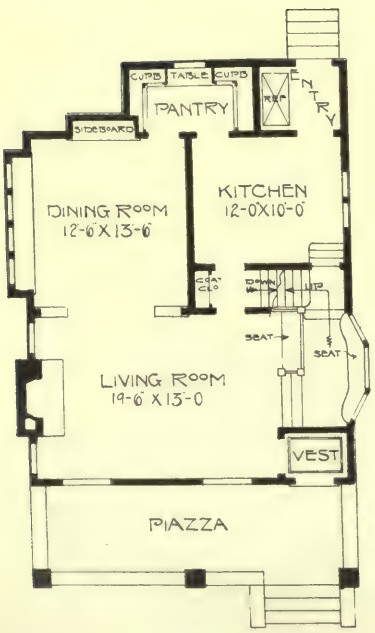


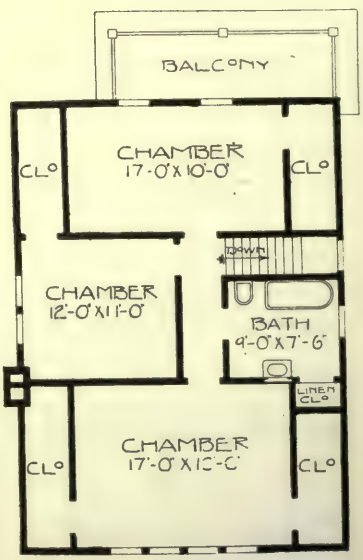
• SECOND STORY PLAN •



Glen L. Saxton, Architect

DESIGN B 246



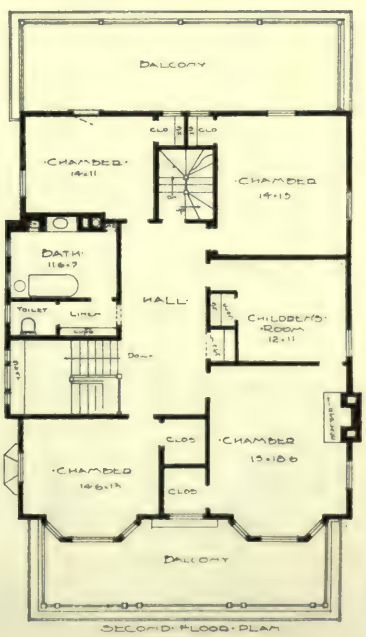




Fremont D. Orff, Architect

DESIGN B 247







John Henry Newson, Architect

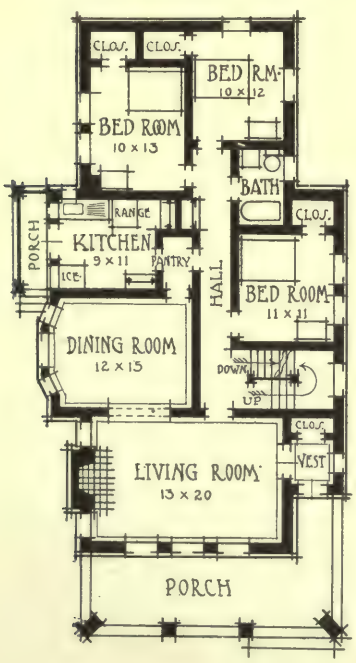
DESIGN B 248

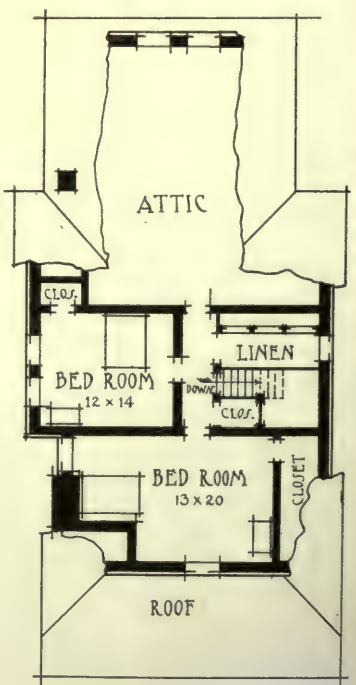
DESIGNS FOR THE HOME-BUILDER—Continued from page 327

Another desirable feature of this design is the cellar entrance from the grade, the cellar going down four steps to a landing, on which is a door leading to the outside.

The second floor has three good sized chambers, bath room and ample closet accommodations. There is some storage space in the attic, and a scuttle to same provided in the second story hall.

Cost, $2,300; width, 22 feet; depth, 33 feet; height of basement, 7 feet; first story, 9 feet; second story, 8 feet; lowest height second story, 7 feet.



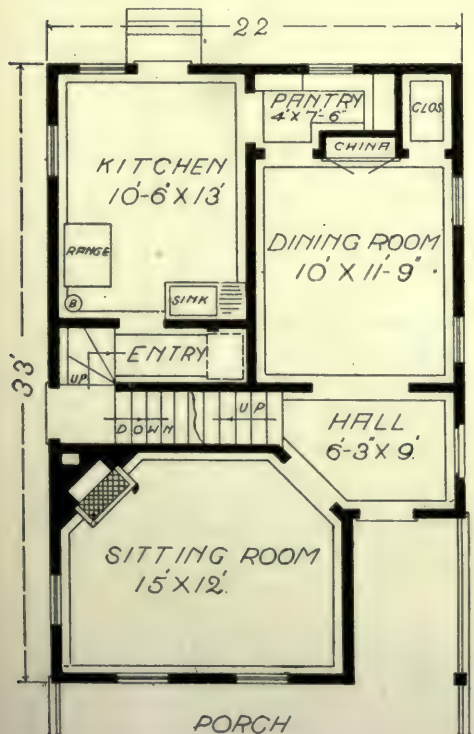


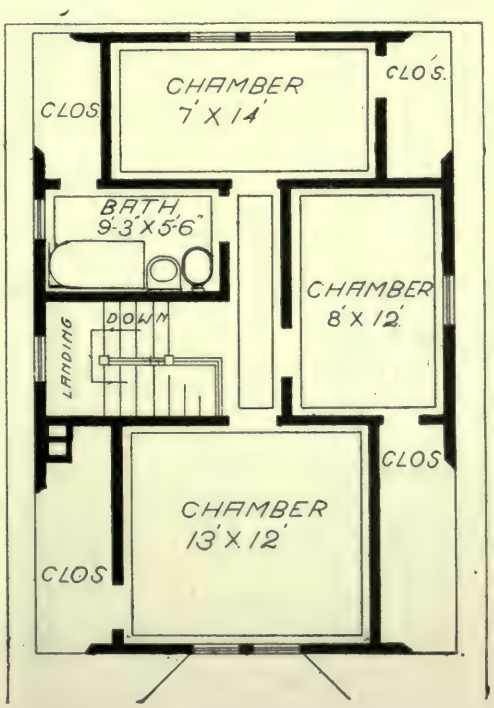


DESIGN B 249

Design B 250.

We have here quite a pretentious bungalow with an attractive porch with stone piers and balustrade. The living room contains a brick faced fireplace and the dining room is adjacent connected by a large cased opening. At the opposite end the living room communicates with a



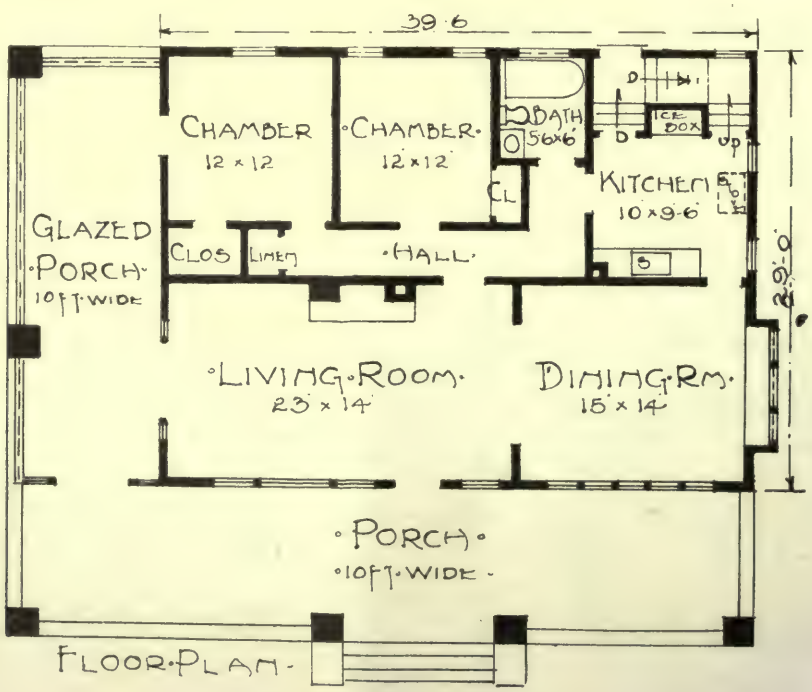




DESIGN B 250

glazed and screened porch. The kitchen is well appointed. There are two chambers, linen closet and a good bath room. This makes a very roomy and attractive bungalow and would make a pleasing home for a wide lot. It is 39 feet 6 inches wide and 29 feet deep, exclusive of the porches. The rooms, other than the chambers, are finished in Georgia pine with Georgia pine floors throughout. The chambers are in white enamel.

The height of the story is 9 feet 6 inches. There is a basement under a portion of the house in which is located a furnace with fuel bins and necessary storage. The cost is estimated at $3,800 as covered by the description.



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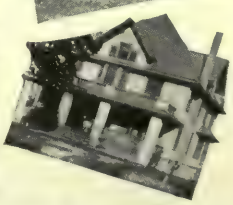
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What To Do With the Ceiling.

SOMEONE has said that the ceiling is the architect's sky. If that be the case, the architects of most houses have no fondness for the sky, for very little attention is paid to ceilings. The beamed ceiling, which is ideally so desirable, is hardly practicable in rooms of moderate height. One has the impulse to stoop, lest one hit one's head. Moreover, the beamed ceiling seems to demand a balance in the way of a paneled wainscot. Then it is always a problem to know how to color the plain spaces between the beams. In nine cases out of ten cream or ivory is the right thing. The strong shadows cast by the beams darken color too much, especially at night, and give an impression of undue weight to the ceiling. In the tenth case, the probabilities are that something giving an effect of pale gold will be the proper choice. But in the average house, of moderate pretensions, the question is not of beams or coffers, but of an interesting, flat ceiling. The ordinary builder's ceiling is, to be sure, better than it used to be. The central excrescences have been much reduced, cornices are simpler, and in houses of the better class, the coved ceiling is often seen. But unobtrusive bareness is not interesting, and a large room, say one twenty feet square, misses a possible charm, when its ceiling is merely four hundred feet of flat surface.

The Ceilings of English Decorators.

To open a book illustrating the work of the best English interior decorators is to acquire a new idea of the importance of the ceiling. For, in almost every case it is given an interest and dignity of its own. The possible exception is in the case of the drop ceiling treatment, which has been so popular with ourselves of late years. When this is used, the ceiling is absolutely plain, without a suspicion of moulding at the angle of ceiling and wall, but the line of separation is marked by a much heavier moulding than our plate rail, or card rack, very often a bracketed shelf being used at the top of the side wall.

For instance, the ceiling of a square room has, at the point from which the chandelier hangs, hardly more than a slightly raised circle, but a large double circle is described on the ceiling, taking in perhaps four-fifths of the entire surface, and this is filled in with a band of simple ornament in low relief, while the cornice is composed of two rather flat mouldings with a similar band of ornament between them. Another treatment consists of a flat moulding, marking out the entire ceiling into rectangular compartments. Or the ceiling is covered with alternating squares and circles, separated by more or less plain space.

In the case of a long room, the slightly arched, or barrel ceiling, is much used, and this is divided laterally by bands of ornament, in some cases painted to harmonize with the decoration of the room, with either a very simple plaster cornice, or one of wood.

Any one of these arrangements is infinitely more interesting than the flat, plain ceiling, while far removed from the monstrosities common in houses of pretension not many years ago.

The Papered Ceiling.

This is supposed to have had its day, but is often desirable in old houses, when otherwise the ceiling would have to be renewed entirely. Moreover, it has its merits in rooms high for their other di-

Save the Dime and Jeopardize the Dollar?



or, Use the Dime to Insure the Dollar?

THE short-sighted man says, "I am not going to paint my house this year. Materials are higher than they should be. I intend to wait until prices come down."

Such a man is thinking more of the dimes he imagines he may save by waiting than of the dollars he is sure to lose when his buildings depreciate. His wisdom is reckoned in dimes, his short-sightedness in dollars.

No thrifty houseowner reasons that way. He says, "My house must have the new coat of paint that is coming to it, even if the cost is four or five dollars more than usual. My house represents an investment, which must be protected. Besides, *it is our home;* we want it to look as well as possible."

Any houseowner who wants to do a little figuring should get from his local dealer prices on the following ingredients:



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mensions. The paperhanger always advises a watered paper, but a small, all-over pattern, giving the effect of two different textures, is more satisfactory. And, if it is also to be used for a drop on the side wall, the structural lines of the design should be squares rather than oblongs, else there will be an awkward mismatching at the ceiling angle.

The French Treatment of the Cornice.

One may differentiate between the work of French and English decorators by saying that the Frenchman accentuates height, the Englishman breadth. The former seeks stateliness, the latter desires to give the impression of comfort, and the distinction holds good always, as between Latin and Teuton. It is the legitimate outcome of this difference that the French decorator treats the cornice as part of the side wall, while the Englishman considers it as belonging to the ceiling. It is well to understand this difference in furnishing a room in distinctly French style. If the walls have positive color, their tone should be continued in the cornice, the ceiling left plain white, cream, or ivory.

Oak and White Paneling.

One judges that the golden oak problem does not afflict the English decorator, but here is a suggestion from a Handicraft room, which might be adapted to the use of someone who has a plethora of the difficult article.

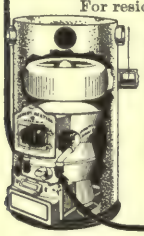
Two adjoining rooms were finished with a panelling of pine, carried to the top line of the doors, and painted white. The door frames, doors and a bracketed shelf surrounding the room were of light colored oak. On the fireplace side of one room was a paneled oak chimney-piece, without a mantel shelf, framing in a large plaque of old majolica. Steel blue tiles surrounded the grate and formed the hearth. On either side were built-in bookshelves, with seats below them. The ceiling and drop were white, and blue china platters and plates were arranged on the bracketed shelf. The floor and the furniture were of oak in the same tone, the rug combined blue and brown tones. In the adjoining room red tones were introduced in addition to the blue, and the furniture was mahogany. The white panelling was of the simplest, suggesting the doors commonly seen in

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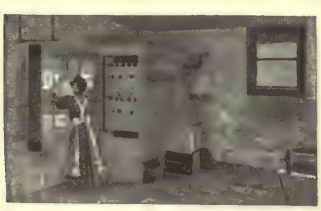
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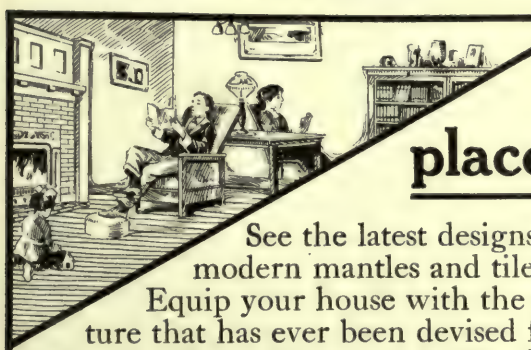
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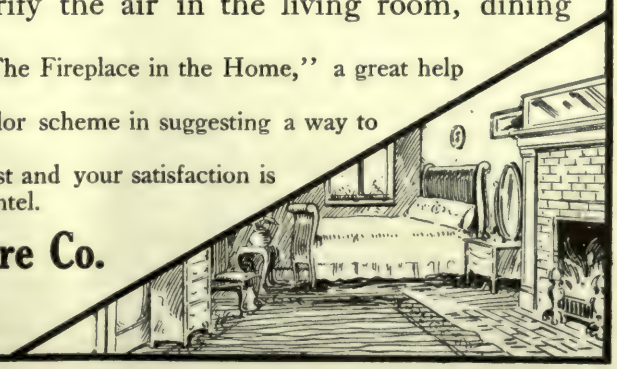
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farm houses, with two long panels and two short ones, plainly beveled.

The idea could be carried out with a paneled white paper below the shelf, but it should be one of very simple design. And such a treatment is not to be thought of for a north or east room, but needs sun.

Unusual Pieces in Wicker.

The hooded chairs of wicker are familiar enough, but there is another sort which, while affording adequate protection from the sun, does not exclude the air, as the hooded chairs do. This has a very high back and a square wicker canopy at right angles to it. If some protection is needed at the sides, an adjustable curtain can be arranged, falling from the sides of the canopy, to be run back or forward as desired.

Piazza sewing tables are in hour glass shape, standing perhaps two feet high, with a tray top, about two feet square. One in green wicker has the tray covered with cretonne, under glass, the edge of wicker, and costs fifteen dollars. The sewing trays can be had separately, in natural wicker, with a handle, and cost four dollars.

English gathering baskets, in wicker, come in many styles and sizes and, while primarily intended for flowers, are equally good for work baskets. All the pieces mentioned can be had in the natural colored wicker, and so treated that they do not become discolored with exposure to wind and weather.

Imported Cretonnes.

The imported cretonnes, ranging in price from two and a half to three and a half dollars per yard, fifty inches wide, are exquisitely beautiful. According to the strict canons of decorative art, they are too realistic to be quite correct, but some rules are honored in the breach, and certainly no one need to apologize for using them. Some of them suggest the luxuriance of a tropical forest, others are a mere confusion of brilliant blossoms, still others have the ribbons-and-roses effect of the eighteenth century, and all of them are so lovely as to make a choice extremely difficult.

And apropos of cretonnes, it is worth noting that in one of the notable plays of the past winter in New York whose scene was laid in fashionable London, the drawing room was furnished completely in a large patterned, flowered cretonne.

The Reappearance of Red.

It would seem as if bright red were on the way to its old popularity. One sees whole counters full of cream colored curtain materials, powdered with red figures. There is getting to be quite a choice of cretonnes and kindred materials with floral designs in red, poppies, poinsettias, sometimes sweet peas. When many bedrooms are to be furnished, a red scheme offers an agreeable variety. But this popularity of red goes side by side with its disuse in dining rooms.

The fact is that red is delightful in combination with cream or gray, and intolerable in unrelieved masses. There are exceptions, in the case of the old reds and of piled and figured fabrics, but the fact remains that red is a color which dwarfs any but the largest rooms, excites the nerves and strains the eyes. They tell a story of a teacher who found her class of boys quite angelic, when she wore blue serge, and developing fiendish traits when she wore red several days in succession.



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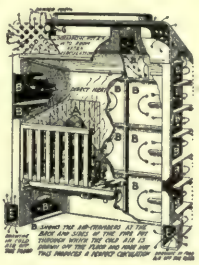
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ANSWERS TO QUESTIONS
ON INTERIOR DECORATION

Editor's Note.—The courtesies of our Correspondence Department are extended to all readers of *Keith's Magazine*. Inquiries pertaining to the decoration and furnishing of the home will be given the attention of an expert.

Letters intended for answer in this column should be addressed to Decoration and Furnishing Department, and be accompanied by a diagram of floor plan. Letters enclosing return postage will be answered by mail. Such replies as are of general interest will be published in these columns.

L. S.—Asks for color schemes for the living floor of a house, finished in weathered oak. Rooms are of moderate size, ceilings only 8 feet 2 inches in height. He also wishes suggestions as to furniture, draperies and rugs.

L. S. Ans. — With weathered oak woodwork you will need strong color for your walls. Would suggest your using an upper third treatment for the living room. Have the ceiling tinted a deep cream color, bringing the tint down on the side wall about 30 inches. Below this lay a two-toned paper, with a dull surface, and a well covered conventional design, of golden brown. Separate the two sections of the wall by a plain strip of wood, rather than the ordinary picture moulding.

Use the same treatment in the dining room, with a drop of two feet to the plate rail, and have a fabric paper with a striped effect, in the same general tone as the living room.

In the hall use a verdure tapestry paper, in brown tone, carrying it to the ceiling line, finishing it there with a moulding. Have all the floors stained alike, a tone a very little darker than your oak. Have the radiators finished in a dark bronze.

For furniture get oak, either Mission or fumed. If the latter, you must be sure that it harmonizes with your woodwork. You will find the oak furniture made on French lines, with curving outlines, very satisfactory. You can also get quite a variety of pieces on colonial lines, gate-legged tables, windsor chairs, tilt top tables and the like, which the maker will stain in any shade you select. A nest of small tables is extremely useful in the living room, and a high-backed, winged easy chair is comfortable and effective. You will also want a couch of generous length and width, upholstered to match the chair, in tapestry or Liberty velvet. If the former, use a rug in warm, rich tones, either an oriental or a Wilton in Persian pattern. With Liberty velvet coverings use a rug in brown tones.

For draperies at the doors, have a plain material, velour, wool damask, or rep, in tobacco brown. One set of curtains at the windows of the living room will be sufficient, sill length, of plain or figured ecru net.

For dining room use the same net curtains, with over-curtains of green and brown figured silk. Have a rug combing brown, tan and low toned greens. You can have either Mission furniture or else fumed oak with cane seats and backs. If you get the Mission have the chairs with rush seats instead of leather. They are most effective and more durable. Instead of white linen covers on tables and sideboard, have gray or ecru crash embroidered in low toned greens and golden browns.

Your hall would be very interesting if the wood were given a green, weathered stain, the woodwork of the upper hall painted a low toned olive to harmonize, the floors and the stairs stained a dark brown. With this you should have plain olive rugs and stair carpet, or else use a two-toned olive Wilton velvet for the purpose, with the necessary furniture of green weathered oak.

W. S. N.—Inquires as to the advisability of mahogany stained doors in the white painted rooms of a colonial house. She wishes color schemes for four bed rooms, and suggestions as to draperies and furnishings.

W. S. N. Ans.—As to the question of the advisability of mahogany stained doors in a room with white painted woodwork, it depends upon the size of the room and also upon the width of

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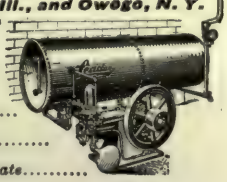
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the door frames. In rooms averaging not more than twelve feet square, you will be better satisfied with white doors.

You do not give the exposures of your different bed rooms, so four color treatments are suggested, which can be distributed as the aspect of each room demands. Your white paint is suitable with any one of them. Would suggest using paper rather than paint for the walls.

First bed room: White paper in narrow, two-toned stripe, cut-out border, festoons of pink flowers and blue ribbons. Furnishings of cretonne in a pattern corresponding to the border; white, cross-barred scrim curtains; gray and pink rug.

Second bed room: Ivory ceiling, two-foot drop on side wall, white picture moulding, with lower two-thirds of flowered paper, pink roses and green leaves; green and white rag rug, toning in with the leaves of the paper; furnishings and curtains of green linen. The greens used should be very gray.

Third bed room: Upper third of wall flowered paper in a wistaria design; lower wall painted greenish gray. Furnishings of wistaria patterned cretonne; plain gray green rug.

Fourth bed room: Small patterned two-toned, old blue paper carried to the ceiling, finished there with a white picture moulding. White scrim curtains, edged with a narrow blue and white gimp. Furnishings of white cotton taffeta, with a large pattern in old blue. Old blue and white rag rug.

Your hall seems to admit of very little furniture, but a highboy, or a chest of drawers is always suitable, and you might have a bookcase in one of the corners, and a large chair in the other.

You will need picture mouldings in all the rooms except the one with the cut-out border. Stain your floors mahogany, using a medium shade, avoiding the purple tinge mahogany stain so often has.

A. W.—Asks about the interior finish of a concrete bungalow. She prefers to use rough plaster for the walls. The finish of the lower floor is to be stained, that of the upper floor painted.

A. W. Ans.—Would suggest your using rough plaster for the walls of your bungalow rather than paper. On the lower floor would leave the plaster in the gray tone, as it is a very good background.

In the living room you might have the woodwork stained brown, with a four and a half foot dado, of brown burlap, divided into panels by vertical strips of wood, also stained. In the adjoining den, it would be well to omit the beam ceiling, and to use a deep landscape frieze. A specially good one suggests a vista in an autumnal forest. Below this you might use the Italian Splint sheathing, which is made specially for rooms in bungalows. Or you can have a frieze in low toned greens, separating it from the gray side wall by a wide, bracketed ledge, staining the woodwork a weathered green.

For the dining room would suggest a scheme in gray. With this you can use either fumed oak, or mahogany furniture. Paint the woodwork in the same tone as the walls, but two or three shades darker. Set the plate rail about three and a half feet down on the side wall, and just below it a cut-out paper border, in a festooned effect. Use a cretonne of the same design for sill length curtains at the windows, and for window seat cushions, if you have them. Or you may omit the border, using a stencilling in the same gray as the woodwork, with short curtains of old red silk or linen.

For the upper story, would suggest white painted woodwork, except in the hall, where it should match the color used in the living room and for the stairs. You might have one bed room entirely white, as a setting for furnishings of an effective flowered cretonne, something with plenty of color. In a second you can give the walls a greenish tint, using furnishings of one of the English verdure cretonnes. For the third leave the walls in their original gray and use a red and white cretonne. For draperies, you will find a white cotton voile, such as is sold for gowns, a very satisfactory material, and much cheaper than the regular curtain fabrics. For the bath room have a four foot dado of Sanitas, or of burlap painted white, with a clear, light yellow above it.



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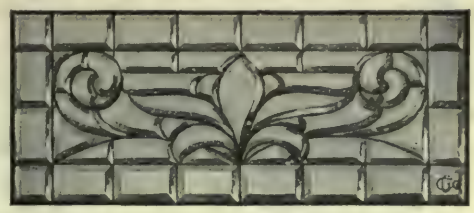
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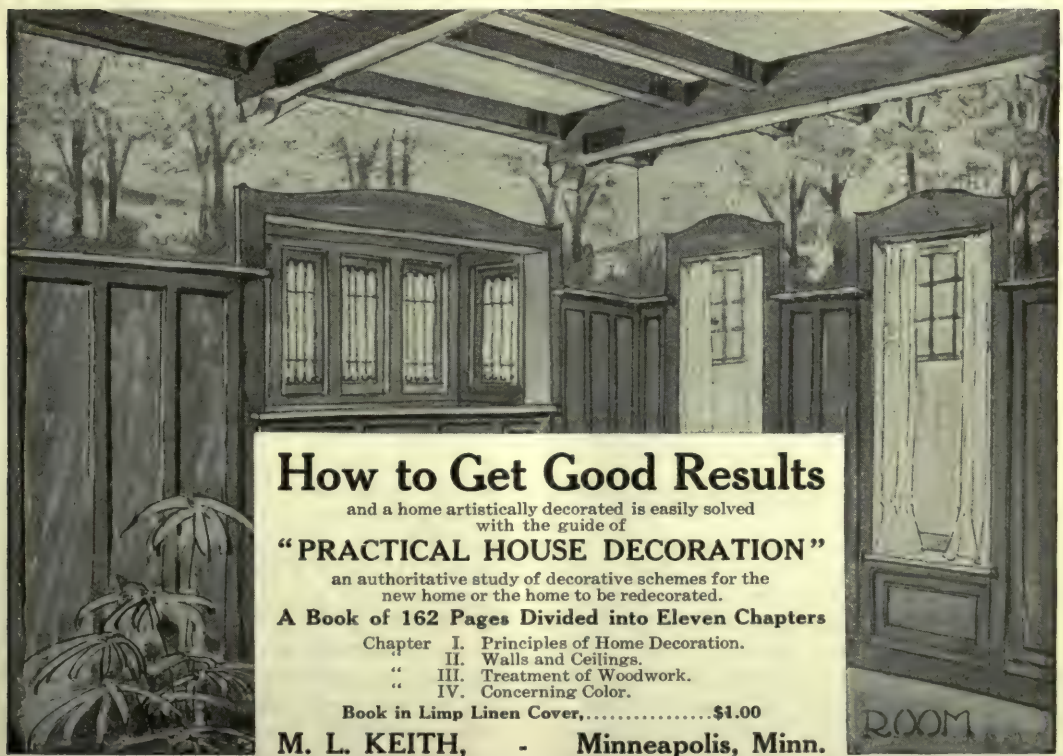
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The Stranger Within the Gates.

IT would be interesting to know just what proportion of the people who employ servants think of them as having the same social needs as themselves. Not social aspirations, which is quite a different matter. A very large part of the population is, of necessity, a necessity accepted as a matter of course, quite outside the sphere of social aspiration. It has ambitions distinctly material, and is frankly bothered by the refinements essential to the stratum above it. And emphatically, in this year of grace, the part of the population which has social ambitions, however rudimentary, does not send its daughters into domestic service.

The fact is that, with the changing conditions of life in this country, with the vast increase of the foreign population, social questions, as they affect the equality between servant and served, have ceased to enter into the question of domestic service. Here and there, in remote country places, there may be isolated cases of the "I'm as good as you are" attitude, but they are extremely rare. But the absence of social ambitions does not imply the absence of social needs.

It was said of an extremely eloquent preacher that he failed as a pastor because he had no imagination. He only apprehended the obvious. His assistant, with a tithe of his gifts, but with the faculty of entering into other people's troubles, was the real force in the parish. Nothing is so helpful in dealing with the problems of common life as the habit of putting one's self in another's place, and nowhere it is more needed than in the rather difficult relation of mistress and maid.

A recent novel has for its theme the idea that everyone is lonesome. And if this is true of people of education and of more or less mental resources, how much worse is the situation of an ignorant young girl, separated from her own people, an alien in another's house, a looker on at life in which she has no share. Left to herself, the maid of all work has a mighty dull time. Perhaps this fact accounts for the growing rarity of her sort, for the increasing disposition of house servants to specialize and live in families where two or three are kept. We must remember that the lower the standard of intelligence, the greater the social craving, and disagreeable company is considered better than none at all.

Finding a Common Ground.

One of the troubles of women in making their maids reasonably contented is in finding ground of common interest, another is in the attitude they assume. As to the first, it is quite safe to assume that your maid is interested in the small affairs which play so large a part in women's lives. Give her the chance, and you will discover a whole hearted interest in your new blouse, or in the skill with which you have evolved a Russian suit for the three-year-old, out of the tweed trousers which came in disastrous contact with the bread and butter left in Johnny's chair. And, impossible as it may seem to many people, experience inclines me to think that, if you can make her understand that you are economical, from necessity and from principle, and not from stinginess, she will be sympa-



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The Matter of Company.

We have all heard women say, with an air of virtue, as of one conferring a benefit on society at large, "I never allow my maid to have company." That is to say she turns a young girl out to find her social diversion in the streets, for that is what it amounts to, unless the girl has a family living nearby. No wonder men find the ways of us women astonishing. However, most of us are well intentioned. We just don't think, and are a bit near-sighted mentally. Or perhaps astigmatic is the better term. Anyway, for our own sakes and for hers, we want to get a realizing sense of the fact that our maid is a woman of like passions with ourselves, but without our training and without our social safeguards, and that it is the merest decency for us to see that her hard work for us is alleviated by the sense of our personal interest in her, and that she has the opportunity of social relations with her friends under the protection of our roof. The economists all tell us that the present conditions of domestic service are doomed, but their end is not yet, and it behooves us to do our best with them while they last.

The Principles of Vegetable Cooking.

Cooking vegetables well does not come by nature, although many people think it does. As a result of this belief, the vegetables served on the average table are either tasteless or bitter. Of course, people who live in towns rarely have vegetables in perfection, just out of the garden, and picked when very young. The first condition is impossible, the second unprofitable to the man who raises them. But proper cooking makes a great difference.

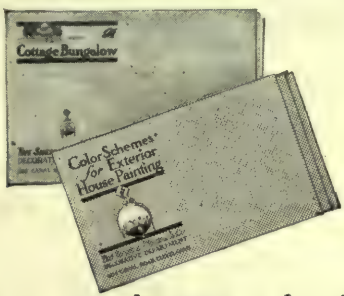
In the first place most vegetables require soaking in cold water after being prepared. Then all fresh vegetables must be cooked in salted, boiling water, and the boiling process must go on without interruption, till the vegetable is cooked, and no longer. Herbaceous vegetables should be boiled rapidly, tubers moderately, and peas and beans very gently. The cover of the sauce pan should always be drawn to one side to allow the gases liberated in the cooking to pass off in the steam.



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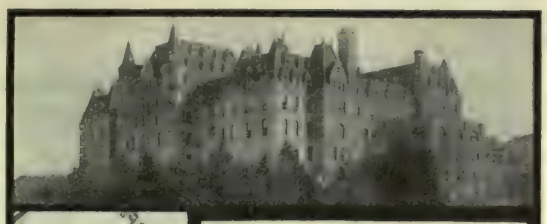
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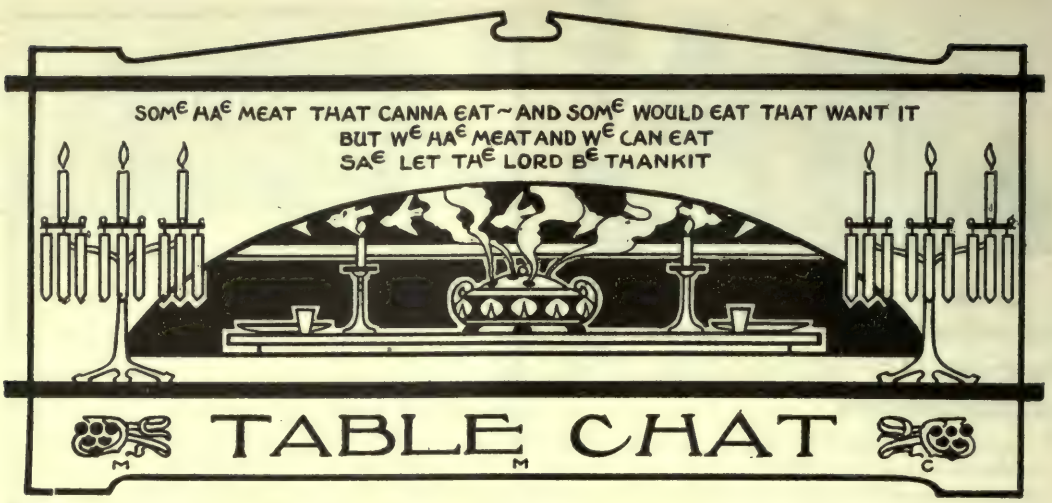


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Spring Breakfasts to Tempt the Appetite.

By Beatrice D'Emo.

FOR the housewife who is sometimes at a loss as to what to present at the first meal of the day that will be both acceptable and novel, four menus are here given, the combinations being arranged with reference to nourishment and flavor without extravagant outlay of either money or time; also the ingredients are obtainable in almost any locality.

Fruit served for breakfast should be in its natural state as far as possible, and very little sugar, if any, taken with it, although fresh pineapple and grape fruit require just a dusting with powdered sugar to make them acceptable to most palates, but any variety should be as cold as may be without actually freezing. This temperature can be gained by leaving the fruit in the lower part of the ice chest over night, but do not bring it in contact with the ice or the flavor will be impaired.



FRIZZLED DRIED BEEF AND EGG WITH WATER CRESS BORDER

Breakfast No. 1

Oranges or Chilled Orange Juice
Hominy and Cream
Frizzled Dried Beef and Egg
Baking Powder Biscuit
Water-Cress
Coffee

Breakfast No. 2

Pineapple
Wheat and Cream
Broiled Kidneys
Saratoga Potatoes
Muffins
Cucumbers
Coffee

Breakfast No. 3

Grape Fruit
Cornmeal Mush and Cream
Broiled Bloater
Creamed Potatoes
Crisped Bread
Radishes
Coffee

Breakfast No. 4

Chilled Oatmeal and Strawberries
Tripe
Baked Potatoes
Toast
Young Onions
Coffee

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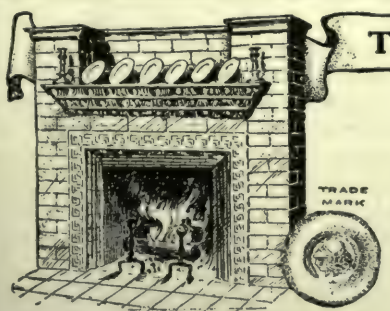
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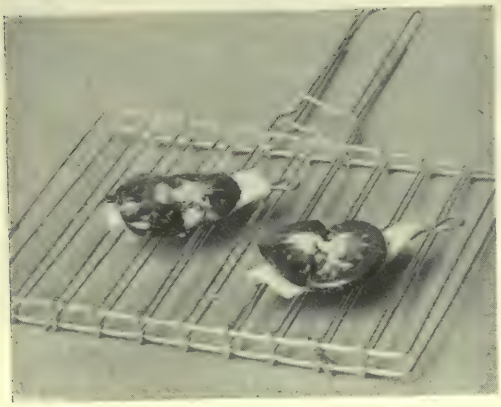


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KIDNEY (LAMB) ARRANGED IN A LA BROCHETTE

Always wash grape fruit and oranges. Strawberries and raspberries should be rinsed and kept in a colander in the refrigerator until ready to serve, but not sugared or they will grow soft.

As the meat dishes here suggested are little more than appetizers, a cereal of some kind, with cream, is required to bring the nourishment up to the required standard. Whatever kind is used, if it needs cooking at all, be sure it is cooked sufficiently. Use a double boiler, have the water for the inner kettle bubbling and well salted, a half a teaspoonful of salt being none too much for a pint of water, and stir frequently while cooking, then the family will have a cereal which is worth while.

Wheat, oatmeal and cornmeal mush are any one of them delicious served cold, the cooking being done the day before, then the cereal poured into either one large or several small molds and chilled over night. Any of the small fruits can be served raw with the cold cereal, or dates, raisins or prunes can be chopped and added to it just after it has been cooked and while it is still hot.

When preparing corn meal mush always stir the meal to a paste with cold milk or water before putting it in the boiling water. Three tablespoonfuls of almost any cereal requiring cooking added to three cupfuls of boiling water makes sufficient for three people, unless they have unusually hearty appetites.

To proceed to the next item on the menu—the meat dish—it will be noticed the usual forms of meat are omitted in favor of inexpensive delicacies. Frizzled dried beef and egg, for instance, requires for a family of three or four about a quarter of a pound of the beef and two eggs. Pour boiling water over the sliced beef and immediately drain it off, shaking the beef in the strainer to get it as dry as possible. Put a tablespoonful of butter in the skillet, and when melted stir the beef in it and cook for a minute or two, until thoroughly heated. Beat the eggs so that the white and yolk are well mixed, add a tablespoonful of milk or hot water—not hot enough to cook the egg—and stir into the beef. Cook with constant stirring until the eggs are set, when put in the serving dish and surround with a wreath of well washed and drained water cress.

Another appetizing way to serve the beef is to simmer it in milk enough to cover for about three minutes after the milk has commenced to boil—it should be poured on cold—then thicken with a teaspoonful of flour, creamed with an equal quantity of butter. For this dish the beef should not have boiling water turned over before adding the milk. This can be served on thin toast or alone. Lamb kidneys are obtainable at from 3 to 5 cents apiece in the spring of the year and make delicious titbits prepared en brochette, which means skewered to slices of bacon as pictured, then broiled or fried. The butcher will usually prepare the kidneys as shown, if requested to do so, or it is easily done at home, only the cook should be careful to pull off the thin outer skin which is almost invisible, but which can be removed without trouble. Without it the kidney is glossy and fresh looking. For either broiling or frying, cook the bacon-covered side first. Stewed, the lamb kidneys are very tempting. Two should be allowed to each person. Take off the skin and fat, split and parboil for five minutes in boiling salted water, then cook for ten minutes in fresh boiling water. Drain, chop fine and put in the skillet in which a tablespoonful of butter has been melted; add one small onion minced for every four kidneys and cook for five minutes. Cover with boiling water and simmer for a minute or two, then thicken with flour and butter mixed to a cream—

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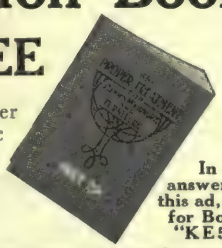
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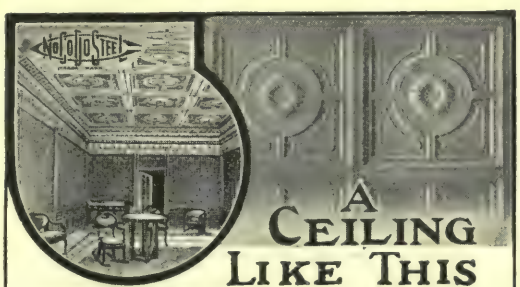
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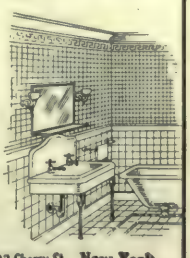
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usually a teaspoon of each is sufficient—cook until creamy and serve either on toast or alone.

For a change, some warm morning serve broiled bloaters and crisped bread, the two going excellent together. The genuine bloater is a large, handsome fish, with plenty of meat on its many bones. Split it down the front and flatten it out. Lay it flesh side down in boiling water for a minute, then wipe dry, rub with butter and broil, first the flesh side then the skin side; put on a hot platter and serve at once, or split, scald and put in the oven with dots of butter over the flesh side, heating it thoroughly, then sprinkle with pepper and serve hot. If possible get roe bloaters. The tiny herring which come packed in wooden boxes or glass tumblers can be prepared in similar fashion.

Tripe as a nourishing and economical breakfast dish has no superior and few equals. A pound of the best, sufficient to serve four people, costs seldom over 10 cents and there is not a particle of waste to it. The honeycomb portion has the most flavor. Usually the butcher has already parboiled it, but in any case it should be well washed in several cold waters then put in boiling water and simmered until it cuts easily—it should be very tender indeed. This can be done the day before and the tripe drained and kept cold until wanted, when melt in the skillet, or, better still, the casserole, a large tablespoonful of butter and stir into it a tablespoonful of flour; add, with constant stirring, a pint of milk, and when all is bubbling cut into it the cold tripe, using the well-scalded kitchen scissors and making the strips about a quarter of an inch wide. Stir until the tripe is heated through, then season with white pepper and salt and serve. If liked, a minced onion may be simmered in the butter before the flour is added. The cold tripe can also be cut in two-inch squares, dipped in batter and fried brown in butter, then served with vinegar heated to the boiling point with allspice and pepper corns, or merely lemon quarters may be served.

The baking powder biscuit, for instance, are made by sifting together a quart of flour and four teaspoonfuls of baking powder with half a teaspoonful



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of salt. Into this work a tablespoonful of lard, or half lard and half butter, pinching it into the dry ingredients with the well washed finger tips until the whole is light and crumbly. Mix to a dough with a cupful and a half of half-milk, half-water, of lukewarmness. Flour the bread board, turn the dough out on it and work only sufficiently with flour to permit rolling out to half-inch thickness, then cut in rounds and put in the greased baking pan, setting far enough apart to permit swelling. Prick the tops with a floured fork and wet them with milk then bake in a moderate oven for from twenty to thirty minutes, according to the heat, until the tops are a delicate brown.

For the muffins, sift together three times a cupful of flour, a tablespoonful of granulated sugar, half a teaspoonful of salt, two teaspoonfuls of baking powder; then stir in one well-beaten egg mixed with half a cupful of milk and, last of all, add two tablespoonfuls of melted butter. This is sufficient to make six muffins, but quantities can be doubled, of course. Butter the muffin pans, pour in the mixture and bake in a moderate oven for twenty to thirty minutes.

Crisped bread is delicious with any kind of fish, especially the smoked kind. What is known as a twist loaf is best for it, but almost any loaf bread can be used. If it is a day old so much the better. Break in pieces about the size of a French roll and put in a quick oven until crisp and hot, which will be when the broken edges begin to tinge with brown, then serve at once with plenty of good butter as an accompaniment.

Water cress should be separated in stalks—it is usually sold tied in tight little bunches—and put in very cold water to which a little salt has been added, to soak for ten to fifteen minutes, then looked over very carefully that no minute water insect retain lodgment in the crisp, green leaves. Shake free from the water and pile lightly in a glass dish, for a centerpiece to the meal.



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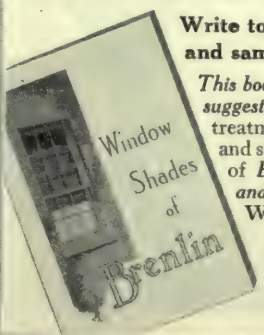
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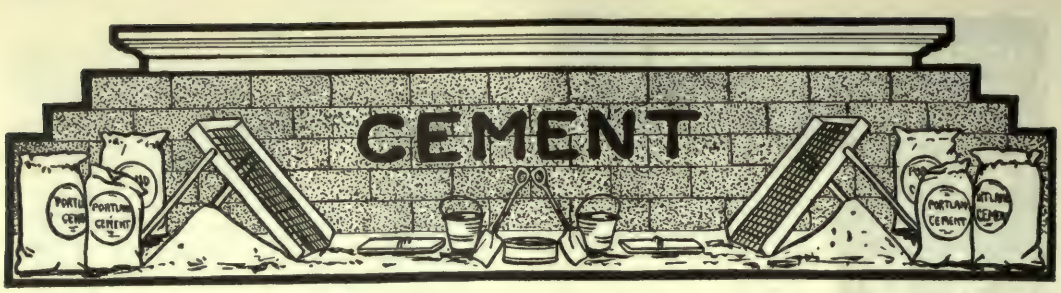
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POLYCHROME CONCRETE VASE

This is illustrated by the Polychrome Concrete Vase exhibited at the Architectural League, Fine Arts Building, New York, during February, 1911, as per illustration.

The materials were Portland cement, crushed black and crushed yellow marble screenings, all passing through a No. 8 screen (⅛-inch mesh), black and yellow marble chips all passing through a half-inch and all collected on a quarter-inch screen.

These aggregates were mixed medium wet and moulded in a plaster mould. As soon as the concrete was hard enough to hold in shape, which took about forty-eight hours, the inside core was removed. Inspection would then show as to whether it was safe to remove the outside mold. If sufficiently hard the outside mold was removed and the surface immediately scrubbed with a stiff house scrubbing brush and water. If this failed to remove the surface coating of cement, a wire brush was used. The concrete was brushed until the larger aggregates all appeared, and in order to obtain texture the brushing was continued until they were thrown slightly in relief.

The vase was then cleaned off with water and kept damp for a couple of weeks, after which it was washed off with a solution of dilute muriatic acid, five parts water. The acid was left on for a couple of minutes and then scrubbed off with clear water and a scrubbing brush.

The effect as to color, texture and form is permanent. The bonding material (Portland cement) is removed from each particle of stone, there being no artistic, practical or technical reason why the bonding material alone should be displayed to the eye.

This opens up a wide field for garden ornaments, decorative panels and balus-

ASBESTOS SHINGLES

INFRINGEMENT SUIT ☞ INJUNCTION ☜

THE PRESIDENT OF THE UNITED STATES
To
H. W. JOHNS-MANVILLE COMPANY, and its associates, directors, officers, servants, agents, workmen and employees, GREETING,

WHEREAS, it has been represented to us in our Circuit Court of the United States for the Southern District of New York, that Reissue Letters Patent of the United States No. 12,594, were issued to Ludwig Hatschek in due form of law on the 15th day of January, 1907, and that the Asbestos Shingle, Slate and Sheathing Company is the sole and exclusive owner of the rights to make, use and sell the inventions and improvements or discoveries of said Reissue Letters Patent No. 12,594, and that you, said H. W. Johns-Manville Company have infringed upon said Letters Patent, and upon claims 2, 3, 4, 5 and 7 thereof, which read as follows:

"2. The herein-described process of producing artificial stone plates, consisting of first mixing fibrous material and hydraulic cement in the presence of a great bulk of water, then forming therefrom a series of thin layers of the mixed cement and fibrous material superposed on each other until the required thickness is secured, then pressing the same and allowing the material to set or harden."

"3. The herein-described process of producing artificial stone plates, consisting of first mixing asbestos fibres and hydraulic cement in the presence of a great bulk of water, then forming therefrom a series of thin layers of the mixed cement and asbestos superposed on each other until the required thickness is secured, then pressing the same and allowing the material to set or harden, substantially as set forth."

"4. The herein-described process of producing artificial stone plates, consisting in mixing fibrous material and hydraulic cement in a bulk of water sufficient to render the cement colloidal, then forming therefrom a series of thin layers of the mixed cement and fibrous material superposed on each other until the required thickness is secured, then pressing the same and allowing the material to set or harden."

"5. The herein-described process of producing artificial plates, consisting of first mixing fibrous material and hydraulic cement in the presence of a great bulk of water, to render the cement colloidal, then forming therefrom a series of thin layers of the mixed cement and fibrous material superposed on each other until the required thickness is secured, then pressing the same and allowing the material to set or harden."

"7. A product of the invention herein-before set forth, being a composition containing hydraulic cement which has been rendered colloidal."

And upon the exclusive rights of the Asbestos Shingle, Slate and Sheathing Company thereunder.

NOW, THEREFORE, we do strictly command and enjoin you, the said H. W. JOHNS-MANVILLE COMPANY, your associates, directors, officers, servants, agents, workmen and employees, and each of them, from either directly or indirectly making or causing to be made, using or causing to be used, selling or causing to be sold, or disposing of in any way, or advertising for sale any Imitation Stone Plates, Slabs or Tiles containing or embodying the invention covered by said Reissue Letters Patent of the United States No. 12,594, issued to Ludwig Hatschek, and particularly specified in claims 2, 3, 4, 5 and 7 thereof.

WITNESS THE HONORABLE EDWARD D. WHITE, Chief Justice of the Supreme Court of the United States, at the City of New York, on the 18th day of February, 1911, and in the hundred and thirty-fifth year of the Independence of the United States.

JOHN A. SHIELDS,
Clerk of the Circuit Court.

[Seal]

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AMBLER, PENNSYLVANIA

trades for bridges, etc. The method and effect undoubtedly comply with all the fundamental principles of art.

A Difficult Solution of an Easy Problem.

The following item by a correspondent to "Concrete" shows how difficult the solution of a problem may be made:

Joseph J. Sleeper, Moore, Pa., writes that he was confronted with the problem of keeping the cold winds out of a rather dilapidated frame house built in 1843. He took off the siding boards, beginning about three feet above the ground and poured concrete into the space between the outer boards and the inside lath and plaster. He then put back this siding to a height of about three feet and poured more concrete and so on until all the outer walls were interlined with concrete. The kitchen never has had any lining, so boards were put up to give an inside form and this was then treated in the same manner as the rest of the house. The inside boards were removed and the concrete surface plastered with a rich mix. The family continued to occupy the house through the entire operation without discomfort and it is declared that the building is now warm and dry and that the whole thing was done at very small expense.

How much easier it would have been to have used either of the materials referred to in the front section of this issue and covered the house with stucco. Not only would the house have been made wind-tight but the question of paint would have been settled for a long time, if not permanently.

Fireproof Roofs.

The conflagration hazard will hang over every town and village so long as wooden shingles are used for roofs. They are conflagration breeders, being usually dry and inflammable, readv to be ignited by the first flying brand or spark. Insurance companies make very material reductions in rates for non-combustible roofs, and the old-fashioned slate, tin or gravel roofs and the newer cement-shingle and tile roofs should be encouraged by every municipality. It would be better if all buildings were constructed of non-combustible materials, but if the

"Burmite Quality Counts" Is the title of our Booklet containing illustrations of Residences, Summer Homes, Cottages, Bungalows, Garages, Barns, etc., of **Frame, Brick, Stone, Concrete,** or other construction, beautifully printed in colors, showing effect of



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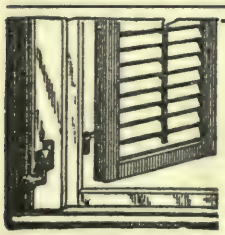
Keeps the heat out in the summer, and insulates the building against cold in the winter, even to the extent of reducing fuel expenses.

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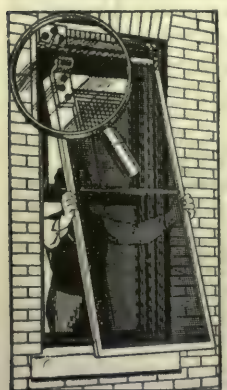
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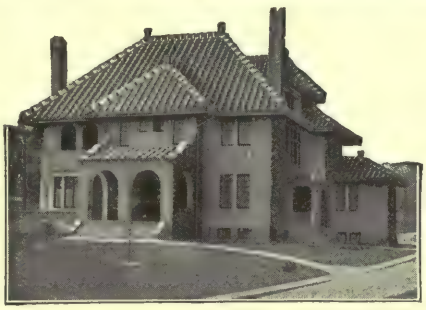
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Easy to apply. No soldering, no special tools—any ordinary mechanic can apply it. Interlocking system by which tiles dovetail into each other makes the roof absolutely water tight and provides for expansion and contraction perfectly—summer and winter. It is guaranteed non-breakable.

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CEMENT—Continued

frames or walls must be of wood, the roof at least should be fireproof. Lighter forms of tile are now being produced, cement and asbestos shingles are growing in favor, and while their first cost is greater than the wooden shingles, their much greater permanency, the immunity from fire danger and the reduction in insurance costs should encourage their more general use.—Exchange.

Zinc for Mortar.

Zinc instead of cement has been used in joints of a new concrete bridge near Lyons, France, says Concrete Age. Molten zinc at 800 degrees in the place of cement to make no fracture of dry stones was used in one-eighth inch thickness to joint the stones of two elliptical arches. The increase in cost was about $2.50 per square foot of the bridge's horizontal surface.

London's New Postoffice.

London's new general postoffice, constructed of reinforced concrete and completely lacking the massive steel girders so familiar in modern building construction, is said by a British technical publication to be guaranteed to stand the ravages of weather and London smoke for a thousand years.—Concrete Age.

Pisa's Leaning Tower.

The leaning tower of Pisa, according to the findings of a Royal Commission appointed to investigate its present conditions, instead of being supported upon a massive foundation, rests upon a ring-shaped masonry base having an inner diameter of 24 feet 3½ inches, exactly equal to that of the inside of the tower. In 1829 the tower, which is about 177 feet high, is said to have been 14 feet 5 inches out of plumb; since that time its inclination, the commission reports, has been increased by an addition 0.0055 foot per foot of its height. An earthquake in 1834 caused a deflection of about 5 inches.

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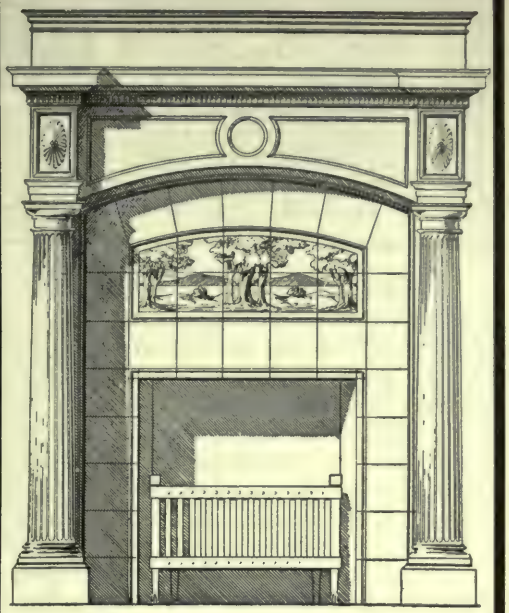
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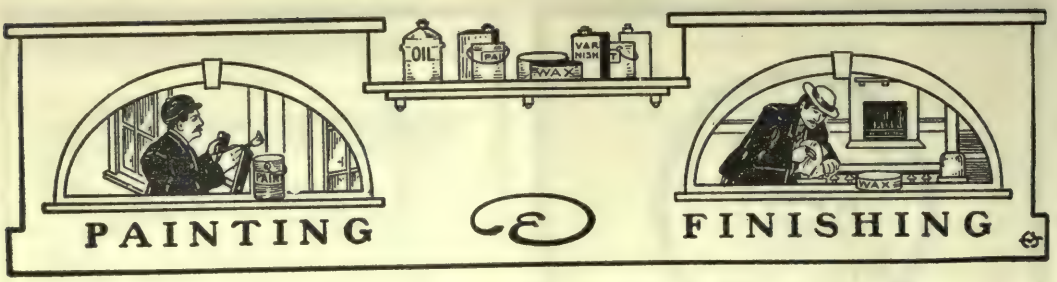
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Filling Hard and Soft Woods.

PASTE fillers are to be used on those woods having an open grain, and these are: Ash, beech, butternut, black walnut, bay-wood, chestnut, elm, mahogany and rose-wood. Shellac should be used on maple, birch, cherry, Circassian walnut and cherry. Also on white pine, unless the wood is to be stained. A shellacked white pine makes a very fine interior finish. The purpose of a paste filler being to fill the open grain and prevent the varnish from sinking, it follows that only those woods are to be thus filled. Any wood must have some surfacing in order to prevent varnish absorption, and a quick varnish like shellac or liquid filler is to be used when this is desired.

What Is Lacquer?

It is simply colored shellac varnish, or a cheap grade of rosin varnish, when cheapness is desired. Red saunders wood gives a pale gold lacquer color, while tumeric and dragon's blood give a deeper gold. Yellow gold lacquer is best for picture frames and the like. A glazing varnish, to prevent redding or blooming of the lacquer, is made by boiling linseed oil quite thick without driers.

When Kalsomine Dries Too Fast.

There are times when the kalsomine will dry too fast, in spite of our greatest hurry in getting it on, this because some walls are so absorptive that there is danger even of the brush being absorbed, and one must hold fast to the handle. A little glycerine added to the kalsomine keeps it from drying quite so fast, say rather less than two ounces to the gallon of kalsomine. Also such walls should be sized with glue size, to which a little soap has been added. By these means an ordinary brush hand may be able to do a good job, without clouds or laps.

Painting on Galvanized Iron.

If the galvanizing is new it will have to be treated with a wash made from two ounces each of copper chloride, copper nitrate and sal ammoniac, dissolved in one gallon of soft water, in an earthen vessel or glass or porcelain. To this solution then add two ounces of commercial muriatic acid. Coat the galvanized work with this solution, and next day paint as directed. At first very black, the coating will become grayish color. Any ordinary paint may be used over this, but a paint that is elastic does best, because the metal expands and contracts and hence is hard on a non-elastic paint. Galvanized work treated with the acid wash will hold the paint well, and the method has been in successful use for a half century at least.

Color Harmony.

An exchange gives the following as some of the examples of color harmony:

Lilac and gold harmonize.
Lilac and cherry harmonize.
Lilac and crimson harmonize.
Lilac and scarlet are harmonious.
White and scarlet harmonize.
White and pink harmonize.
Black and white, a perfect harmony.
Black and orange, a rich harmony.
Black and brown, a dull harmony.
Black, white, yellow and crimson harmonize.
Black, orange, blue and scarlet harmonize.
Red, orange and green harmonize.
Scarlet and blue harmonize.
Scarlet, blue and yellow harmonize.
Crimson and gold, a rich harmony.
Yellow and purple, an agreeable harmony.
Yellow and lilac, a weak harmony.
Yellow and white, a poor harmony.
Yellow and chestnut harmonize.—The Modern Painter.

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Its artistic designs add to the beauty and appreciable value of a building. Its wearing quality, founded on fine metals and thorough workmanship, eliminates repair bills and assures satisfactory service.

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Turpentine.

Turpentine made from gum and refuse pine wood has the same specific gravity but there is a difference in the action of either in connection with paint. Gum turpentine will evaporate much more readily than the wood spirits, and the latter will cause white paint to yellow, a fact equally applicable to all turpentine substitutes. Wood turpentine also has a very strong and objectionable odor. New turpentine is not as good for painting as that which has aged a little, as the new contains some pyroligneous acid, which will retard the drying of the paint; but if allowed to settle, the acid will go to the bottom, for its specific gravity is greater than that of the turpentine.

Paint Mildewed.

A correspondent tells us about some spots that have appeared on the north and shaded sides of his house, and asks what it is. It is mildew, and it may be removed by washing with soap and water. If it is too fast to be thus easily removed, try a little chloride of lime in water, applying it to the spots, and let it dry. Then wash off with soap and water, after which rinse with clear water. Another remedy consists of a pint of soft soap, a pound of cornstarch, one-half pint of salt, and two ounces of acetic acid. Thin to a brushing consistency with water, apply to spots, then after two or three hours remove with a scrub brush and water, after which rinse well. Let dry, then repaint the whole surface, or not, as you may choose. Mildew may be removed, but not cured, for the cause will remain. It is found that some pigments induce mildew, while others do not. Ochre is bad, and linsed oil is also susceptible to mildew.

Varnish Becomes Porous.

Varnish becomes porous after exposure to the air, unless carefully prepared and applied. A varnished surface under the microscope shows innumerable pits or depressions, in which dust and microscopic organisms collect; these in time form centers of decay, which eventually penetrate the coat and admit moisture. A coat of varnish thus penetrated is useless for protection.



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"*There is no art to find the mind's construction in the face.*" —*Macbeth.*

—BUT—

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Now if the problem be given proper consideration, it means *time* and *time* is money. We would be speedily overwhelmed with requests if this were a *free* offer, consequently it is not free. No signed contract is asked for. We propose to make our work so pleasing and satisfactory as to demonstrate beyond a question that the *best* is certainly the *cheapest* for you. The fact that *houses* built from our designs *sell* advantageously when built proves they are *practical* and *desirable*. *This is an important matter should you wish to dispose of your property.*

REMEMBER:—It is not what *you pay for plans* that is the *real consideration*, but it is *what you get.* Why? Because upon your *plans* and especially the *details* of *construction* depends utterly the *proper* or *improper* expenditure of *all your building funds.* Quite important, is it not?

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HEATING AND PLUMBING

MORE important than most any other one thing about a home is the system of heating. This is a problem that every home builder ought to consider very carefully, for upon the heating system depends the comfort and protection the house will afford in the long siege of winter. Home is nothing if not comfortable, no matter how artistic its construction may be—its prime purpose is protection, and the heating plant is the core of it. Remember in building that you live in the inside not outside. The house itself is only a pleasing frame for the heating system.

Whether you are building for a home of your own or to rent or sell, this problem of the heating system places equal demand upon your caution. Nowadays those who rent or buy houses have learned to look to the heating system first—the decorations after. Tenants and buyers have found from many painful experiences of winter freezing that the heating system is the all important thing. And the value of your house for renting or selling suffers or gains away out of proportion to the difference in the cost between a poor and a good heating system.

But the heating system equipment is not the only important thing to be considered. The best of equipment will not give proper results if poorly installed. The radiation, piping, location of radiators, boilers, etc., must be scientifically correct to gain 100 per cent satisfaction, and it can be done right only by expert heating engineers. The planning and designing of your heating system should receive just as much care and skill as you would expect your architect to give to the planning of your house.

Many steam fitters and contractors think that no plans are necessary—that all that is needed is to haphazardly run a pipe here, put a radiator there and set the boiler somewhere in the basement. The result is that some radiators are cold, pound and rattle, others overheat and the furnace eats up an unreasonable amount of fuel.

After you have decided upon the best heating system for your home, see to it that you have proper plans for its installation. Some of the big heating system manufacturers maintain a department of engineering especially to supply users of their equipment with free plans and specifications.

What is the best heating system is of course a much mooted question, but the preference shown by leading architects and heating contractors can be taken as a pretty safe gauge. Learn all you can by personal investigation and correspondence before settling this important point.

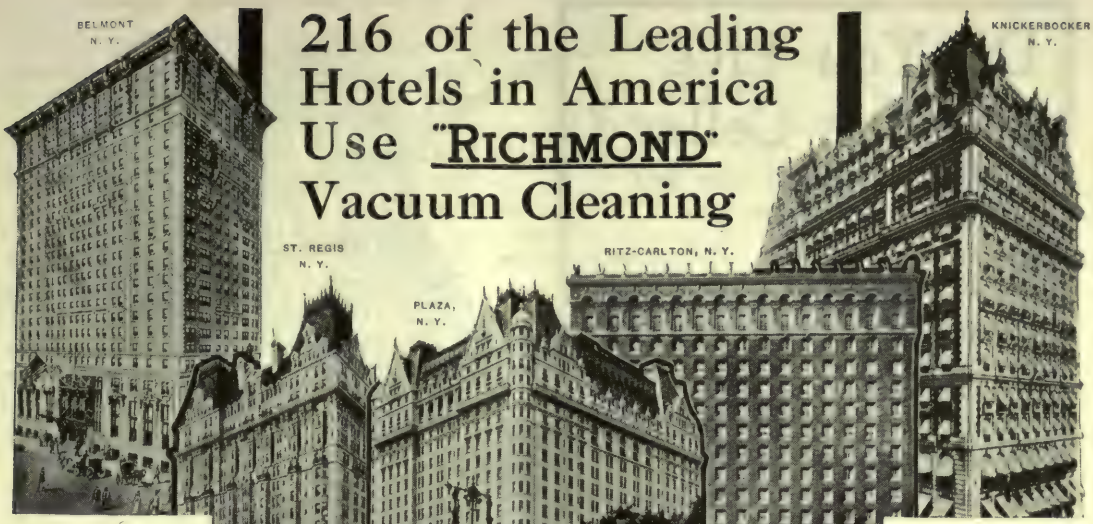
Repairing a Hole in a Cistern.

Several attempts were made to patch a hole worn in the bottom of a cistern by a chain pump, but all failed because water would soak up through the cement, before it had time to set, says C. M. Rogers, Wellington, Ohio, writing to Popular Mechanics. I wiped the hole out dry, put in dry cement to absorb the water and then mixed up some cement with very little sand, to make it set quickly. This method failed just as others. Then I removed the cement, cleaned the hole dry and sealed the bottom and all the cracks with common sealing wax. A neat mixture of cement on this made a water-tight bottom.

Requirements for Good Plumbing.

Good and durable material; good workmanship; good supports, fall and alignment; proper junctions; direct and short runs; accessibility of all parts; safe trapping of the fixtures; perfect ventilation; powerful flushing; instant removal

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It pays for itself, first, because it does away with the annual tear-up called *house-cleaning* (and house-cleaning costs more than you think unless you have figured it out).

It pays for itself, second, because it doubles and trebles the life of carpets, hangings, furniture, wall-paper, decorations; and keeps everything always *bright* and *new.*

In hotels, where house-cleaning is a *business*, brooms and dusters have long been discarded as *too expensive.*

In hotels, where *every operation* is figured down to the last penny of cost, "RICHMOND" Vacuum Cleaning has been almost universally adopted *because it pays.*

In residences, apartments, hotels, schools, office buildings, libraries, churches, theatres, factories, stores, garages, and public buildings, "RICHMOND" Vacuum Cleaning will easily earn its own way, to say nothing of the cleanliness and convenience it brings.

It can readily be installed **in old buildings as well as in new.**

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Cawthon, Mobile
Bienville, Mobile
Paxton, Omaha
Bellevue-Stratford, Philadelphia
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Seneca, Rochester
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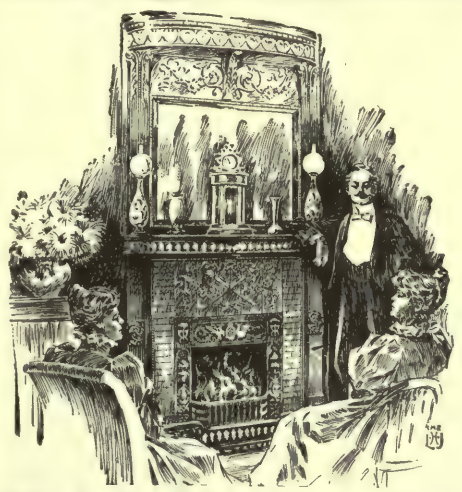
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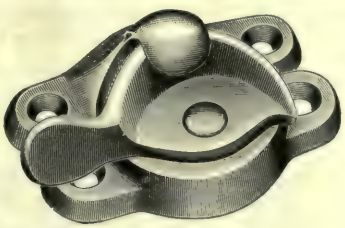
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SPLINTERS AND SHAVINGS

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If the inventor's scheme proves practicable it will win favor with residents of wooden dwellings in which during the hottest part of a summer's day the temperature is often close to that of a boiler room during its working hours, and this heat is often retained into the night. For this condition the roof is responsible.

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The modern theory of successfully insulating buildings for cold storage and other purposes is based upon entrapped air—air that is actually dead. This means that the air must be in sealed spaces and that the spaces must be minutely small —otherwise the essential idea of "still air" is overthrown. The insulation must depend for its entrapped air upon the interstices or cells of the material employed rather than upon alternate layers of solid insulation and air spaces.

This new principle of insulation, which does away with double walls with air spaces between, has brought into vogue solid insulation, says "Cement Age" (New York). In this type the protection consists of layers or blocks of various materials set in Portland pitch cement directly against brick or concrete walls and protected on the inside surface by plaster or tile. The space occupied by solid insulation is much less than that ultilized by the older construction. If a fireproof or slow-burning material be used in making the insulation, the fire risk is greatly reduced.

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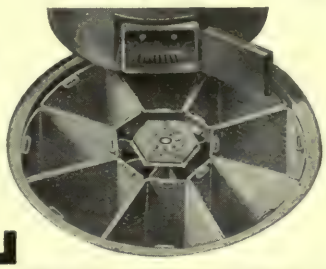
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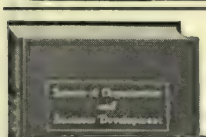
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Since the above was brought to our attention, Congress has passed a bill providing for proper Diplomatic residences and Consular buildings abroad. It will take time to accomplish satisfactory results and the association will no doubt find its work is just beginning.

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The scene is laid in the "Grand Opera" at Paris, that most beautiful of all buildings of its class. A mysterious series of events leads to the belief in a phantom, which is woven into a very unusual and exciting story. The first impression is less favorable than is produced by a more intimate acquaintance with the text.

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Price, $1.25. The Bobbs Merrill Company, Publishers, Indianapolis, Ind.

Popular Hand Book for Cement and Concrete Users.

By Lewis and Chandler.

This is a comprehensive and popular treatise on the principles involved and methods employed in the design and construction of modern concrete work. It covers the uses of plain and reinforced concrete and many things of value to the concrete user is given, including kinds of cement employed in construction, concrete architecture, inspection and testing, waterproofing, coloring and painting, rules, tables, working and cost data.

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The Norman W. Henley Publishing Co., New York City.

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ALTHOUGH PLACED IN A CLUSTER OF TREES, SHRUBBERY AND FLOWERS, THE HOUSE GETS ITS SHARE OF SUNSHINE
—E. B. Stratton, Architect

KEITH'S MAGAZINE

VOL. XXV JUNE, 1911 No. 6

An Architect's Modest Home

A House Built for the Designer's Own Home Is of Unusual Interest

By W. J. FREETHY

WHEN we consider the different types of well-designed houses in our suburbs—I speak now of houses upon which much thought has been spent in the planning and designing, by some of our leading architects, — we wonder at what sort of a house an architect would build for his own occupancy; how he would bring to bear all of his training and development on that which, as his home, would reflect his own character and personality. For it is then that he has his most difficult client to deal with—himself. He must weed out of his conception the many ideas that he has utilized for others, and tie himself down to concrete facts, so far as cost, artistic quality and adaptation to surroundings are concerned.

The subject of this article, a modest yet exceptionally attractive dwelling, designed by an architect for his own occupancy, near Boston, is the home of Mr. E. B. Stratton. The location calls for something more than the ordinary, surrounded as it is by houses far exceeding it in cost, and where the landscape, somewhat rolling in character, wooded more or less, gives an excellent setting for a building which is simple, but really picturesque.

The gambrel roof, of which this is an example, always seems to nestle well amongst the trees, giving easy roof lines and picturesque form, and where it is well studied room is not sacrificed to any great extent in the second story.

Through a simple entrance gate of lattice, overgrown with vines, and down a path bordered by flowering shrubs, one finds the entrance porch is almost at the rear.

This allows of the living rooms being placed to the front, without the usual opportunity of close scrutiny from the ordinary front entrance porch, and in place of which here we find a somewhat secluded piazza with a pergola treatment and lattice between the pillars.

If people only knew more about where to place a chance for vines to cling to their houses, by using lattice treatment, we should see a much closer relation between our gardens and houses instead of the customary stiff effect of a building set in the middle of a blank lawn.

As we enter the house the first view of the hall is very gratifying; here the architect has bent his energies to make a good impression. This is usually the opposite in most of our cold, formal hallways. The floor is laid in red quarry tiles with wide mortar joints. The wood



THE DINING ROOM WITH ITS CAREFULLY SELECTED FURNITURE

work is painted a light gray tone, while the walls are paneled with strips of green moulding, blending in excellently with the wall paper. Instead of the conventional balustrade we find here a buttress, which hides the stairs almost from view, while above a lattice of green strips fills the gaps. The staircase is lighted by leaded glass windows, suggesting by their pattern and color grape vines with bunches of fruit and large green leaves. The hall has a light, airy, but withal a dignified effect, and, with its rugs, furniture and brass sconces for lights, is as inviting as one could wish, and prepares us for a view of the living room, which is separated from the hall by a treatment of posts and beams with bookcases below on the living room side. Two steps lead to the living room, which is at lower level, in this way giving a room of its size the correct proportion for area and height. The walls here are divided into panels on the lines of the ceiling beams, the panels being filled with tapestry, which gives a good contrast to the brick finish of the room. A large bay gives ample light and forms a pleasant corner of the room. Glass doors, with small panes, lead out to the veranda, mentioned above. The fireplace here is somewhat unusual in its treatment, the brickwork itself forming the shelf. A good selection of furniture, rugs, draperies and pictures make this a most livable living room. The dining room, which leads directly out of the living room, is reached by a rise of two steps, placing it on the same level as hall, kitchen, etc. The walls here are paneled, above the white wainscot, with the rails painted white, the panels being



THE LIVING ROOM WITH A GLIMPSE OF HALL AND STAIRWAY

filled in with the so-called "peacock pattern" paper. The sideboard which, like all the other furniture, is mahogany, sets in a slight recess in the wall. One corner is taken up with a "beaufait," the glass doors of which are divided into the regulation colonial pattern with wooden bars. An old rose silk drop shade, lined with white, softens the light on the dining table. This room is a harmony of color and gives one the impression of hospitality and good cheer. As a whole, these rooms and hall are among the most successful ones the writer has seen.

A word might be said here of the convenient china closet, with its ample cases for china; the pantry with all the necessary accommodations; a light, airy kitchen, and an easy half-flight of stairs for the maids, connecting with the main staircase. On the second floor leading from a compact hall are four chambers and one bath room.

The chambers have plenty of light and for, apparently, so small a house, are large. The closet room is ample. The papers are attractive, appropriate and harmonious.

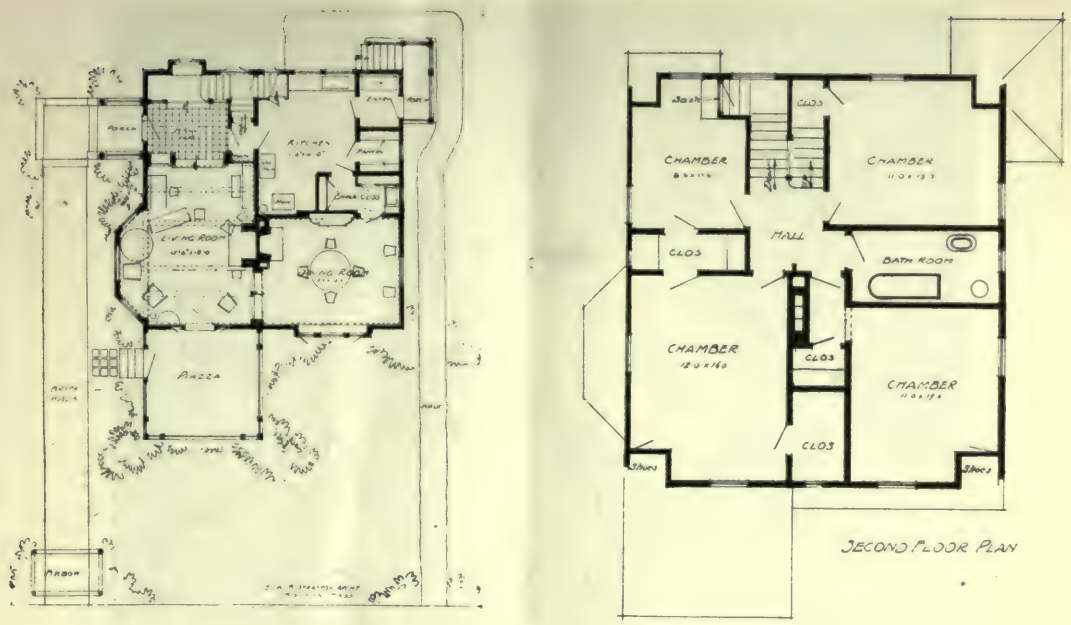
The attic contains room for the maids and ample storage room. The basement contains furnace, brick store room, etc.

The cost of this house was about $5,000 above the land, and at this price could be duplicated in almost any locality. This house would, at slight additional expense, look exceedingly well with cement plaster substituted for the shingles, and with the roof stained red, and light green blinds, would make a most attractive dwelling.

It should not be forgotten that houses



A VIEW OF THE HOUSE SHOWING ARBOR AND WALK —E. B. Stratton, Architect



THE PLANS IN RELATION TO THE GROUNDS ARE WORTHY OF STUDY

of this type, or for that matter, any small suburban home, depend upon a judicious treatment of grounds. As will be seen from the illustrations, the endeavor has been made here to unite house and garden by an extremely attractive layout of shrubs and flowers and climbing vines and roses. All are assembled at just the points to count from a decorative standpoint.

The House Cost

Mason work	$500
Carpenter work	3,300
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June in the Flower Garden

By TARKINGTON BAKER

Author of Yard and Garden

ONE of the most interesting features of a garden, large or small, is always the spot where the water flowers are grown. These may lift their heads and foliage above an elaborate and expensive architectural creation or they may throw their beauty to the winds from the rim of a humble tub or tank—it makes no difference. Wherever the aquatics are, there somehow the center of the garden seems always to be.

And the growing of aquatics is one of the most interesting and most fascinating forms of gardening. Many varieties may be tried and, with the exercise of a little common sense, most of them will succeed. One of the easiest of all to grow, however, is the lotus (Nelumbium). The leaves are round, nine inches to a foot in diameter, and borne on stems that stand high above the surface of the water. The color, a pale and glaucous green, is always pleasing, and the flowers splendid. The blossoms are to be had in pink, white or yellow, and are four to six inches in diameter when full blown. The lotus is hardy, and, provided the container is deep enough, requires no protection in winter. Where, however, the pool or basin or pond is shallow, winter protection must be afforded—enough to insure the roots against freezing.

All circumstances taken into consideration, probably the best time for planting an aquatic garden in the northern states is June. At this time all danger from frost has passed, and the water itself has become warm enough to insure the plants against check when introduced. The beginner should remember



THE LAST BLOOMS OF THE DAINTY COLUMBINE APPEAR IN JUNE. THEY ARE SELF-SOWING AND REQUIRE A SHADED, SHELTERED SITUATION

that two feet of water is sufficient; that, indeed, is the maximum depth. Shallower pools are much more satisfactory for the amateur. Water lilies require from twelve to eighteen inches of water, but many aquatics prefer a depth of from two to six inches.

If the aquatics are to be grown in tubs half-barrels or similar containers, arrangements should be made for sinking these in the ground. This is not necessary, but much more pleasing effects are gained thereby. Permit only a few inches of the tub to show above the ground and, to mask this, plant some dwarf perennials, such, for instance, as the dwarf irises. These harmonize splendidly with the aquatics. It should also be borne in mind that tubs may be arranged in groups of three or four and thus, at very small expense, an elaborate effect may be obtained.

While the Nelumbiums are all suitable for tub-culture, neat, small growing kinds are to be preferred in such restricted area as these small containers offer. The miniature variety, Pygmaea alba, is especially to be recommended. Among the nymphaeas suitable for the purpose are Aurora, all of

the Laydekeri group, Odorata minor and Helvola. Among the miscellaneous aquatics the beginner may select with confidence from the following list: Cyperus alternifolius, water hyacinths, water poppies, parrot's feather and the fairy water lily.

See that the location of the aquatic garden is one that is warm and sunny. The soil should be rich garden loam with which thoroughly rotted manure has been mixed. The compost, when ready, should be one-third manure. Cow manure is preferred. The Nelumbiums demand a deeper rooting medium than the others. But, whether the soil is deep or shallow, cover it with a heavy layer of clean, white sand to prevent any particles of the compost from rising to the surface.



CALENDULA—A VIGOROUS ANNUAL

If the summer bedding plants are to occupy the space where the spring-flowering bulbs have been grown, the latter should be carefully lifted and deposited in a shaded place until they finish ripening. In lifting the bulbs, the best implement to use is a spading fork. Bring the bulbs carefully to the surface, taking pains not to sever the stems. Lay them on their sides in the shade and make sure that the situation selected is dry. When the stems and foliage have turned yellow and withered, they may be removed, and the clean bulbs stored away until the fall planting season arrives.

Spade up the old bed after a liberal dressing of decayed manure has been spread over it and, when the ground has been thoroughly broken and pulverized, smooth the surface, grading carefully so that the center is somewhat higher than the edges. Mark out carefully the rows where the bedding plants are to be set, soak the roots of the plants, set them and press the earth closely round the roots. If the bed is exposed to the sun, it is best to shade it for a day or two until the newly planted flowers are accustomed to surroundings.

It may be of interest to the gardener who wants a bed of geraniums to know what the best varieties for his purpose are. A good list is as follows: Madame Bruant, carmine; General Grant, scarlet; S. A. Nutt, dark crimson; Beaute Poitevine, salmon-pink. Good Coleus are: Verschaffelti, dark crimson; Rainbow, maroon, and Golden Bedder, yellow. The best heliotrope is Queen of the Violets; the best ageratum is Stella Gurney, and the best bedding begonia is Vernon.

Early in June, as a rule, the rose bug makes its appearance and the plants should be sprayed with arsenate of lead without delay. Use the insecticide at the rate of one pound to ten gallons of water. Apply before the buds expand.

It is well at the same time to stir the ground round the roses, pulverizing it thoroughly and, from time to time, to apply liquid manure. The best fertilizer of this character is made by soaking one pound of dried sheep manure in five gallons of water.

If mildew should make its appearance —it can be readily detected on the foliage of roses—spray at once with potassium sulphide one ounce to two gallons of water.

Other work essential in June is to complete the planting of gladioli bulbs and of dahlias, and to prepare to stake these and the taller-growing perennials that may require the support. Mulch the ground round the sweet peas with lawn clippings or similar material and see to it that the flowers are cut off daily.

In applying fertilizer at this season of the year it is well to bear in mind the following simple rules:

Apply nitrogenous fertilizers to plants that are grown largely for foliage effects. Nitrate of soda, an ounce to a square yard, most practicably applied as a liquid, is the best and most rapid in action.

Plants that are too generously fed will go to foliage and flower sparingly. Geraniums, therefore, and similar bedding plants, should not be fed on too rich a diet.

Well rotted manure may be used to advantage at all seasons. It is best applied in June and July as a mulch.

The use of bone dust is a habit with many amateurs, who apparently forget that it is very slow in action, and of little value to plants until many weeks have passed after its application. Reliance, therefore, should be put in liquid manures—the most easily and quickly assimilated—if effects are wanted immediately.

If there are bare spots in the borders, and usually June shows some ragged patches, it may be well to remember that perennials may be obtained that have been grown in pots, and that these may be safely transplanted even as late as July. But some care should be observed in selecting plants for this purpose. It is futile, for example, to buy plants of this class if their blooming period is already past. Select perennials, on the con-



LARKSPUR-DELPHINIUM

trary, that will bloom in August, September and October.

Annuals, of course, may be substituted, but many of us have a prejudice against mixing annuals with the perennials. Their death in autumn only leaves the hole unfilled, while the cost of plants in the first place has been the equal, as a general thing, to the cost of the permanent perennial. If, however, the gardener purposes planting seed, he may rely upon the following, all of which, if sown early in June, will give excellent results before the season's close: Sweet alyssum, calliopsis, candytuft, marigolds, nasturtiums, calendula, phlox Drummondii, salvia splendens, portulaca and nigella.

The lawn, if properly treated, was rolled in April and again in May. Many persons are under the impression that this is sufficient. As a matter of fact, though, the roller should not be laid aside until autumn. Whether the sward is new or old, it should be rolled again in June and, at the same time, final patching for the season should be done. Although the sun has become very warm, it is not by any means too late to sow grass seed in small patches, and, of course, with the exercise of care, sod may be laid down successfully.

It should be borne in mind that blue grass will not give immediate effects. So, in sowing seed for quick results, mix with the blue grass English rye, crested dog's tail and red top. One-half of the mixture should be blue grass. Rake the surface of the bare spot with a steel rake until the surface soil is well pulverized, sow the seed, rake them in, roll or tamp, and then apply water if the season is dry. Follow this by placing a thin layer of dust over the seeded area. Within a very short time, the tender blades of grass will appear, and before the middle of July has passed, the bare spot will be as green as the rest of the lawn.

Cut the grass every eight or ten days in June and July, permitting the clippings to remain on the lawn. Set the knives of the mower so that the grass blades will be two inches long when clipped. Weeding must be done throughout the month. A drop of gasoline on the severed root of a dandelion will kill it, and oftentimes, so applied, save the lawn from the digging that usually leaves it unsightly and uneven.

Construction Details of the Home

A Consideration of the Exterior Materials

By H. EDWARD WALKER

THE materials appearing externally should be selected with a view to durability and architectural beauty.

Wood.

Wood has always been of service, and if properly protected by paint and stain will give excellent satisfaction. The necessity of giving it constant attention is a source of expense and an argument against it.

The ease with which wood can be worked into beautiful mouldings, makes it specially valuable in carrying out distinctive architectural styles. In combination with other materials many charming effects may be obtained.

Brick.

Brick makes a good substantial exterior and the wide range of colors and surface textures, makes it specially valuable to designers. No expense is required to keep it in good condition, from the ordinary exposure to the weather, an item

to be considered in making comparative estimates of cost with other materials.

Stone.

Stone used exclusively usually looks rather heavy in small residence architecture, unless of a rustic character. Rubble stone in very wide mortar joints is very effective in the Colonial style with details in wood painted. Cut stone should be used sparingly except in large houses For foundation walls above ground, sills lintels and trim, it is unexcelled.

Moulded and carved stone readily finds its place in the house of any size, if carefully designed.

As a material, stone requires little or no attention once it has been properly set in position, an item that will offset the first cost.

Cement Blocks.

Cement blocks of the usual rock-faced order, like stone, look heavy in a small building. Several moulds of face should be used, that each block when laid in the wall will appear different from its neighbor.

It is this distressing lack of individuality, together with poor color and quality of the early cement blocks, that made designers adverse to them. With improved methods and the production of desirable architectural shapes, prejudice to cast stone is rapidly disappearing. When properly made and set, the wall should need no further attention.

Monolithic Concrete.

Monolithic concrete walls, which are poured in a mould are surfaced in various ways which are pleasing and durable. The outer facing of pebbles, or crushed rock are embedded in clay against the inner surface of the outer form. The clay is washed away after the concrete backing has set, leaving the finishing materials exposed on face, but firmly embedded in the concrete.

Another method is to place the desirable surface aggregates in front of the ordinary concrete mixture, to be treated with acid after the removal of the forms. As only a small portion or layer, in each of these methods, can be placed at a time the effect is not always uniform.

Stucco.

Stucco used as a finish for wood construction or upon a masonry backing is very satisfactory. The many pleasing surfaces now obtainable are not in themselves a sham, because they do not represent stone or other material. They are frankly stucco surfaces and may be accepted as such upon their merits. Coarse and fine aggregates are used for the dash coat to produce various surfaces.

Trowel suction and stippled effects are of interest.

Combination Effects.

Of the materials noted for use externally, all may be used in combination upon the same structure with the exception of stone with cast cement.

Only in a few instances is this permissible and then only when the cement is not apparent as such, but as a successful imitation of stone. Brick, stone or cement with wood and stucco combine very nicely as in the English half-timber style.

All stucco houses with tile roofs, successfully carry out Spanish and Italian motives, accompanied by wide spreading cornices as a protection to the stucco wall.

ROOFING MATERIALS.

Asbestos Shingles.

These shingles are composed of cement and asbestos, manufactured under patents and make a very durable roof, thoroughly fireproof.

They may be had in gray or in color and are laid upon slater's felt over tongued and groved boards securely nailed to the rafters.

Sizes vary and methods of laying, all of which is covered by the directions of the manufacturers.

After the first cost there is little or no expense for repairs if properly applied, as the material is practically indestructible.

Asphalt Shingles.

Shingles of asphalt manufactured under patents are now upon the market which are 15 inches long and 8 inches wide. The surface is of ground mica, which produces a hard attractive surface. They are light, requiring no additional strength of framing, are fireproof and are said to equal a covering 12-ply in thickness. Laid like ordinary shingle, four-penny wire nails are used. They are guaranteed for twenty-five years.

Slate Roofs.

Good slate should be both hard and tough. Colors vary from dark blue, bluish black, and purple to gray and green. Red slate is also obtainable and makes a very effective roof. Holes are made in the slate for nailing and felt is introduced beneath the slate upon the sheathing. At the ridge valleys and hips the slate should be bedded in elastic cement. Slate is brittle but lasts a long time if not damaged by anything other than the usual exposure to the elements.

Terra-Cotta Tile Roofing.

This material comes in several patterns after Spanish, Italian and German motives and is glazed or unglazed in many beautiful colors.

It gives an excellent effect for masonry or stucco construction and a harmonious selection can be obtained readily owing to the range of color in the tile.

A feature which is of interest is the glass tile, of identical pattern used for skylights. As the glass and terra-cotta tile interlock, there is no break in the roof lines, the surface being continuous.

Metal Shingles and Metal Tile.

Shingles and tile patterns are now made in metal and are very artistic and durable. Preservative coatings are applied which give color and prevent rust. Copper turns green when exposed to the weather and is prized by many as a roofing material because of this fact. It needs no coating. Only ordinary care and ability is required in laying and full directions are furnished by the manufacturers

No extra strength is required in roof framing.

Tin Roofs.

A good tin roof properly put on and kept painted will last from thirty to forty years. The first coat of paint should not be applied until the rain has thoroughly washed off all oil and grease.

Only rosin should be used as a soldering flux and all lumps left upon the tin should be removed as soon as the tin is laid.

Felt paper should be placed under the tin as a cushion and to deaden the noise of the falling rain. The durability of the roof is increased by painting on the back before laying. A good paint for tin roofs is 10 lbs. venetian red, 1 lb. red lead, 1 gallon pure linseed oil. Roofs of less than one-third pitch should be made with flat seams and steeper roofs should have standing seams from eaves to ridge. Nails should never be exposed. Only well-known brands of tin should be used, in weight as manufactured for the purpose.

Slag or Gravel Roofing.

This is an excellent covering for roofs with a pitch of from ⅜ inch to ¾ inch per foot. In cold and damp countries the pitch may be as much as 4 inches per foot, but less is desirable.

A 3-ply gravel roof of 12-lb. felt and 70 lbs. of straight run, distilled pitch, will last from four to seven years. A five-year guarantee is usually given by the roofer. Rosin-sized sheathing paper is laid first over the roof boards with a lap of one-inch, nailed only enough to hold in position. Three layers of tarred felt are then lapped one over the other to produce three-ply work, each layer being carefully coated with pitch at the lap, to

its neighbor and the whole covered with a uniform coating of pitch into which is embedded, while hot, slag or gravel. Coal tar pitch is used, distilled from American coal tar. For nailing, three-penny roofing nails are used, driven through tin discs.

Flashings are made of heavy tarred felt turned up against chimneys, walls, etc.

Ready Roofing.

There are many brands of ready or composition roofing, as it is often called, upon the market. It comes in rolls and anyone can apply it by simply making a lap of 2 inches, coating it with cement and nailing every 2 or 3 inches. The cementing material, nails and discs are packed in the center of the roll and nothing is required other than a knife and a hammer. A warm day is the best time to lay it, because the roofing is more pliable under heat, and if not carefully placed in position will wrinkle. If water runs off readily the wrinkle will not matter, but is very apt to be damaged if walked upon.

Any pitch of roof may be covered with this material. It is best to paint once in three years. All flashings may be made of it.

Asbestos Roofing.

This may be had in sheets or rolls and is applied in the same manner as other ready roofings. It possesses some advantages peculiar to its composition and is of special value in some positions.

Artistic Ready Roofings.

Some roofings are made with cut edges to represent shingles or tile effects and give a very good effect.

Some are best for side walls and roofs, others for decks and balconies, and some are specially made to walk upon. These materials are accompanied by careful instructions from the manufacturers, who in most cases guarantee the goods.

Wood Shingles.

Cypress, redwood and cedar are best for shingles. Redwood possesses the advantage of being less inflammable than other woods. Ordinary shingles vary in width from 2½ to 14 inches.

Four bundles usually make up 1,000 shingles, which are equivalent to 1,000 shingles 4 inches wide.

Dimension shingles are sawn either 4, 5 or 6 inches wide.

Area Covered by 100 Shingles.

Laid	Area Covered	No. to a Square
	Sq. Ft.	
4 in. to the weather	100 Sq. Ft.	1000
4¼ " " " "	110 "	910
4½ " " " "	120 "	833
5 " " " "	133 "	752
5½ " " " "	145 "	690
6 " " " "	157 "	637

Add 5 per cent for hip or for valley roofs and 10 per cent for irregular roofs with dormers.

With a rise of roof from 8 to 10 inches to the foot lay shingles 4 to 4¼ inches to the weather, with 10 to 12 inches lay 4¼ to 4⅜ and on steeper roofs lay 4½ to 5 inches to the weather.

Building Papers and Insulators.

Building papers are too numerous to make special mention as to names, but their use is universal and a little attention as to quality and general makeup will produce the desired results.

Those prepared with rosin, tar products, etc., are used upon the sheathing, roof boards and between studdings. Some are very tough, waterproof and of lasting quality and such are recommended.

Those that dry out and become brittle are of little value because they crack, allowing the wind to penetrate.

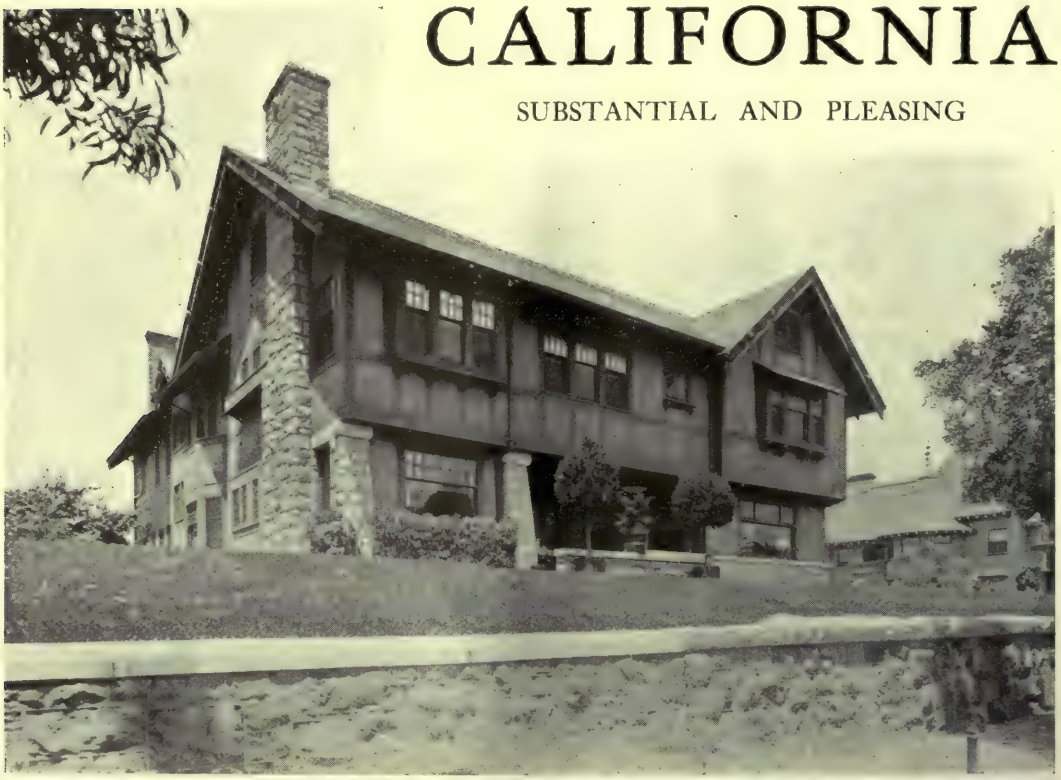
Good protection is afforded by hair, sea grass, or linen products, sewn between building paper. Various grades are manufactured and are used not only as insulation but for deadening.



A DESIGN IN WHICH BROAD LINES AND PLAIN SURFACES HAVE BEEN USED TO EXPRESS SIMPLICITY AND CREATE A HOME-LIKE ATMOSPHERE. STUCCO, BRICK AND WOOD ARE EMPLOYED IN HARMONIOUS CONTRAST

CALIFORNIA

SUBSTANTIAL AND PLEASING



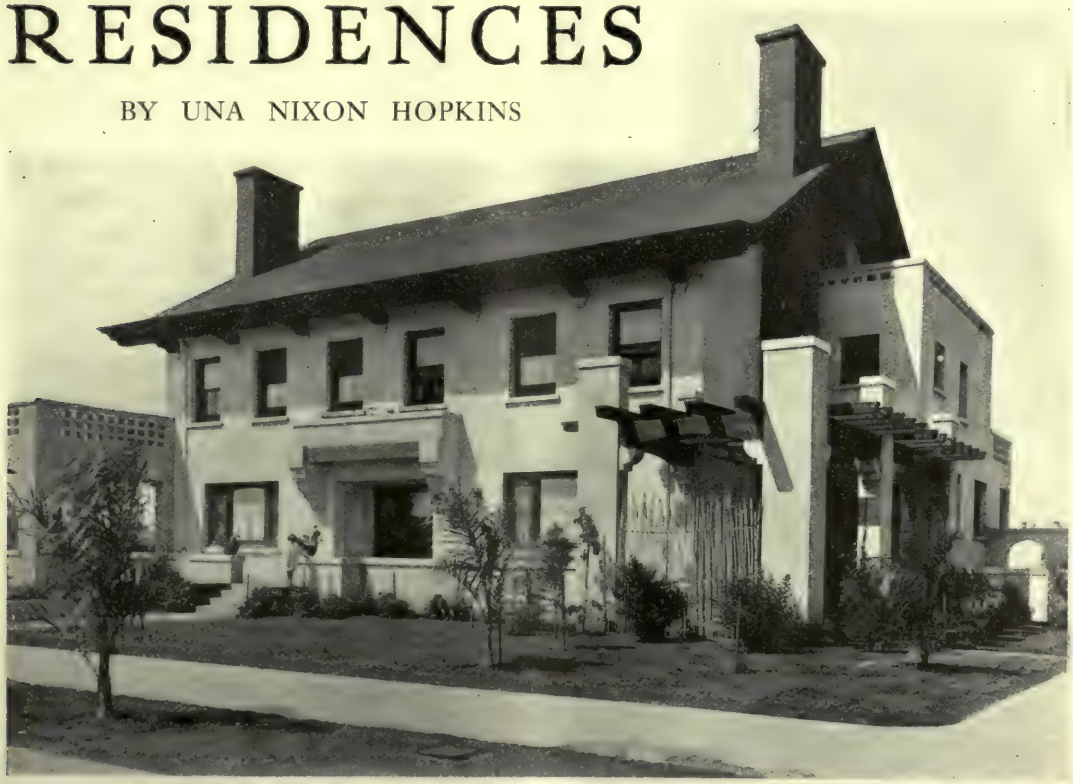
CUT STONE IN A VIGOROUS TREATMENT APPEARS IN THIS DESIGN. SEVERELY PLAIN AND STRONGLY MARKED IN VERTICAL AND HORIZONTAL LINES, THE HOUSE NEEDS THE SOFTENING INFLUENCE OF TRAILING VINES AND ABUNDANT FOLIAGE



THE ROUGHNESS OF CLINKER BRICK GIVES STRENGTH AND PERMANENCE TO THIS DESIGN AND THE COMBINATION OF BROWN STAINED WOOD OF THE HALF-TIMBER AND WHITE PLASTER, ADDS REFINEMENT AS A LEAVEN

RESIDENCES

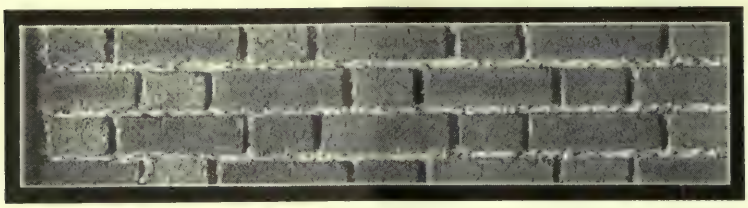
BY UNA NIXON HOPKINS



THE LIGHT COLOR OF THE STUCCO IS AN EXCELLENT MEDIUM FOR THE PORTRAYAL OF LIGHT AND SHADOW AS CAST BY THE WIDELY OVERHANGING CORNICE. THE DARK PERGOLA BEAMS ARE IN EXCELLENT CONTRAST

Comparative Consideration of Brickwork

Its Use As a Home-Building Material.—Some Pleasing Varieties in Form, Color and Texture



ROUGH BRICK WORK IN FLEMISH BOND WITH RAKED JOINTS

BRICK is a building material which in its general characteristics needs no introduction to the public. So ancient is it that bricks in good state of preservation exist that were made by the Persians, Syrians and Egyptians thirty centuries or more ago, before the Christian era. One of the first lessons of Bible history is that of the Children of Israel being required by the Pharaoh of the Oppression to make bricks without straw. In view of modern procedure this does not seem such a hardship, but undoubtedly was almost an unsurmountable problem at that time. It may be that "necessity being the mother of invention," the first bricks made without straw were devised because of this then unreasonable order. The dim past shrouds many things in mystery but this we know—that brick has been made for centuries and the many large and beautiful structures of antiquity testify to its durability.

Brick is manufactured in an almost endless variety of shapes, sizes and color tints and is composed of clay, sand-lime, concrete and even glass. Clay is found in different colors and is treated in various ways to produce the many effects as to color and texture now upon the market.

The skillful mixture of different clays and various methods of burning produce surprising results.

The dry pressed brick is made from carefully prepared clay pressed with a minimum amount of water.

The sand-mould brick is pressed in mud form into sanded moulds, hence its name.

The wire cut brick in either smooth or rough surface is what is commonly known as mud brick, a greater amount of water being used in its manufacture and where special roughness is desired the lumps are allowed to persist, thus making more resistance to the wire while in the plastic state, producing the extra rough surface.

Another surface is made by water dropped upon the brick giving it a beautiful texture. Repressed brick are again placed in the mould and pressure applied after cutting. This is often done to the vitrified paving brick which in skilful hands has found a place in certain positions even for residence architecture.

A very effective brick face is produced by a fracture of the face lines by great pressure after the operation of burning is entirely completed. Several bricks are allowed to fuse and the resulting fracture or rock-face, as it may be termed, is very pleasing, especially for work close to the eye. Rough effects in brick work have

a great vogue today and the house built of it will have a wealth of harmonious color and a picturesque feeling of its own, which it is utterly impossible to convey by the illustrations, excellent as they are. Note that the joint is made a feature of the work in wide lines, either raked or simply struck without pointing.

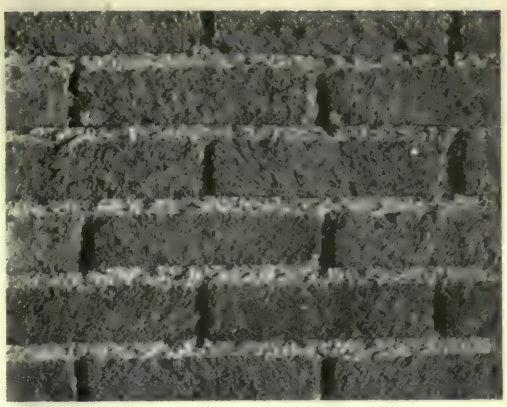
Another very pleasing construction is that of interlocking hollow tile, which is a new material for facing, of larger dimensions than brick. It lays up in the same bond as the first illustration but the courses are four inches high. It can be used as a veneer on frame or backed with brick or tile. The matter of bond, or arrangement of brick as presented to the eye is of importance in securing a pleasing wall. The first illustration is in Flemish bond and the second in ordinary bond. There are still others which are very effective.

Moulded brieks are obtainable in various shapes and in the more classic structures find a well-merited position.

Clay bricks are also given an enameled surface in various colors and are very appropriate for certain situations. The salt glazed brick may be mentioned as having a slightly glazed surface which resists the action of deleterious properties in the atmosphere of cities and is therefore desirable because dirt and grime do not enter in its substance.

For the more utilitarian purposes are the solid common brick, the hollow brick and also the hollow tile which may be used for backing and if of good quality will readily carry the joists bearing upon it.

The cost of brick work depends upon the location, kind of brick used and the care necessary to lay it. Common brick may be had as low as $6 per M. and will cost about as much to lay. Often it will cost $7.50 and as much as $9.00 to lay. Sand mould brick costs $12 up to $20 and $15 is a fair price to lay it in Minneapolis, including mortar. Good face brick, generally, unless of extra good



Courtesy of Johnson, Jackson & Corning.
A HIGH CLASS WIRE CUT BRICK

quality, can be laid at this price. An excellent quality of brick can be purchased at $35 per M. These are the clay brick which are most commonly used, as to kind and price.

Sand-lime brick are used for both face brick and backing and may be had in this market in white, buff, and blue-gray tints. The white costs $7.50 per M. and the colored $12. Used for backing the cost would be $14 in the wall, but as a face brick it will cost $14 for the laying, including mortar, owing to the extra care necessary. Plain cement brick may be had locally at $8.50 per M. and the cost of laying is little in excess of clay brick owing to its extra weight, $9.50 for backing and if laid as face brick, $15. Rock faces and color effects are obtainable.

Glass brick have not come into general use as yet, in this country, and while they are manufactured to a limited extent, no data as to cost can be quoted. It will be readily seen that if this material ever becomes a serious competitor with other bricks, a wide field of possibilities will be opened which will have a wonderful influence on our architecture, because of the wide range of beautiful colors obtainable.

Brick is indispensable to some styles of architecture and in combination with stone and terra cotta with suitable bond, in appropriate jointing, gives a wall texture and color that is unsurpassed.

An English Decorator's Cottage in California

By MARGARET CRAIG



THE ROOF IN GRACEFUL CURVES SUGGESTS THE OLD-TIME THATCH
—Jeffery & Van Trees, Architects

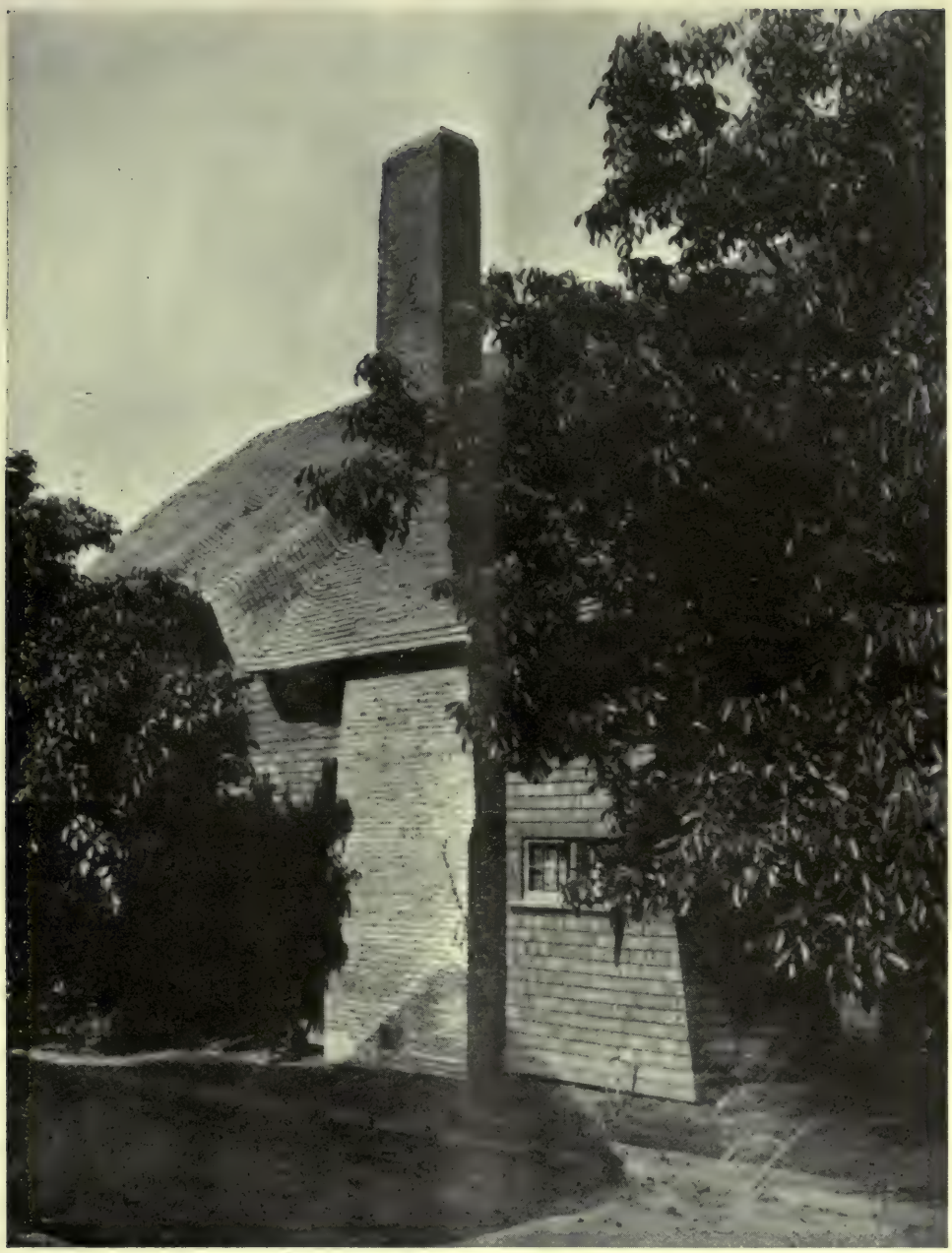
NEAR the canyon that enfolds the arroyo seco (dried river stream) in Pasadena, and in the neighborhood of rolling hills, a home has just been erected that is most charming in its construction.

It is the roof that instantly reveals the fact that the thought of the old English cottage has been manifested in many ways in its architecture.

The home is owned by Mr. E. J Cheesewright, formerly of England, who conceived the plan of reproducing exactly the thatched roof of a cottage such as is found in the Isle of Wight. As the use of thatch, made of rushes and straw, is entirely out of the question in a city of today, shaped beams and shingles were chosen as the substitute materials to obtain the desired effect.

The roof is constructed so as to represent a sixty or seventy years' old thatch, the original having been added to every two or three years. It has proved a success and one is delighted to see the masterly way the builders have turned the eaves at each end of the ridge and by the graceful curves of the thatched roof have accentuated the dormer windows.

This pleasing feature added to the variety and simplicity displayed, recall the cottages of these ancient villagers who never failed to express in their dwelling places a close relation to the configuration of the land and to the characteristics of the location in which they built.



THE QUAINT RED BRICK CHIMNEY OF THE EAST WALL

Shingles have been used for the exterior covering of the house and a most pleasing stain has been applied for its coloring that eventually will become brownish grey.

The placing of the windows, which are all casement, adds to the effectiveness of the house and yet their disposal is just as satisfying from within. On the east wall of the house is the red brick chimney, and with its generous and substantial lines reminds one of the good old chimneys of England. In fact, upon Milton's home in the Bunhill Fields a bot-



THE LIVING ROOM WITH ITS TUDOR ARCHED FIREPLACE AND VAULTED CEILING

tle-shaped chimney that is very similar to this one can be found today.

The entrance to this attractive home is on the west, and its broad heavy door under the ample hood suggests hospitality, and agrees in harmony with the rough brick porch. The front door is a solid piece of red wood with wooden strappings and with nails and fastenings that are hand-hammered.

One does not cease his admiration at the door, but is abundantly blessed with surprises on entering. The little hallway containing the stairs gives a vista into the living room at the left, and the dining room on the right.

This long living room has a ten-foot vaulted ceiling that attracts immediate attention. It adds height to the room, and gives it a distinctive appearance. At the farthest end is the well designed fireplace. The mantel shelf is heavy red wood and the panelling above it is made so that a painting can be inserted in the center. In the fireplace itself are English hobs, which in olden times were used for warming various viands.

The coloring scheme of the entire house has been thoughtfully considered. Here the paper is of an exquisite soft brown so as to be an appropriate background for pictures and to agree with the woodwork, which has an acid stain of a delicate fawn color.

Individuality is shown in the electric light fixtures which were made in copy of old gold Florentine sconces.

The window draperies are of softest brown to blend with the decorations of the room which are simple, but unusually attractive. The coloring of the walls and woodwork is such that the furniture which is of different woods, as mahogany, walnut, wicker and oak, harmonize perfectly.

The wicker chairs are stained a dull brown and are covered with a rich cretonne in which old rose, greens and browns appear. These same colors are in evidence in different degrees in the



THE DINING ROOM WITH VISTA ACROSS HALL AND LIVING ROOM

Oriental rugs upon the hardwood floor.

Two Hepplewite chairs, the exact replicas of those made for Dr. Johnson, so long ago, an antique Chippendale chair and two tables of the same designer's work, all add to the completeness of this room. A wide brown davenport fills a space on the south wall, and a grand piano and an old walnut chest are well placed at the south end.

The hall is small but quaint and on either side of the door, it has lights which are copies of old English leaded antique glass in dull colorings. One of these windows has an English coat of arms burned in, and the other has the Rampant lion. The panels below these colored windows are of plain heavy figured wood.

Good taste and judgment are displayed in the decoration of the dining room, and above the chair-rail, paper with old tapestry coloring of blues, reddish browns and sage green tones is used. Below the rail the wall is of a rough plaster and its color is a blending of the dominating colors in the paper above.

In the west wall of the room is an oriel window with a wide shelf for flowering plants and filling the south wall are two pair of French doors that lead on to the garden porch, and in this way an uninterrupted view of the garden is obtained. This porch is of brick and is partly covered with a roof, the rest being open beams so as not to cut off too much light.

A kitchen, a screen porch, an ironing room and a maid's room, comprise the service part of the house, which is reached through the main hall as well as through the dining room pantries. These service rooms are all enamelled in white and have a wall coloring in a tone of light tans.

Variety, which is so prevalent in the old English cottages, is certainly shown in the second story. Because of the structure of the roof, and because of the



THE ORIEL WINDOW AND HOODED ENTRANCE WITH DOOR AND SIDELIGHTS

vaulted ceiling of the living room which necessitated a rise of a few feet for the front room, no two rooms are alike.

White enamel used for all the woodwork on this second floor, gives a fresh, airy appearance. The front room has a paper of white with a yellow flower design. The bed room on the west is lovely in Wedgewood blues with dainty curtains at the windows. French doors are built in the south wall of this room and open out upon the sleeping porch.

Most of the old English cottages had attractive doorway gardens and especial pains will be taken by the owners to complete the garden which will be laid out part in natural, part in formal style.

The old live-oak at the southwest corner of the house enclouds the porch with its swaying branches. Leading down to this tree and the garden from the front porch is a path of stepping stones, and in among the branches of the trees above are lanterns lighted in the evenings so as to give an air of enchantment to the scene beneath.

In this sunny land of homes it is not strange that the thought goes back to England to borrow of the mother land a few simple ideas that have made her cottages beloved by artist and homemaker.

Certainly the charm of the old English thatched cottages will never fade away, when homes suggesting their graceful lines are today being erected even in distant lands, amidst trees and in view of the spreading hills of the country.

Designs for the Home-Builder

Design B 251.



HIS is a picturesque treatment possessing character and an air of solidity. The walls are of light buff stucco on tile up to the second story window sills. Above, including gable ends and dormers are of vertical boards and battens, stained brown. The shingled roof is stained moss green. Features of the large living room are the window seat in front and the fireplace opposite in the ingle-nook. The square bay of the dining room contains the buffet. The kitchen and pantry are conveniently arranged. On the second floor are four bed rooms with roomy closets, a bath room and linen closet. Birch floors and finish would be very satisfactory with some white enamel in the upper story. Oak may be had at a moderate advance in price. No attic except for ventilation. Basement under whole house contains a hot air heating plant with a grade door to outside if desired. Size 30x28 feet. Built in a good substantial manner. The estimated cost is $3,900.

Design B 252.

Quite a number of materials enter into the composition of this design, an undertaking not always successful in producing good results. The variety of colors in the cobble stones of the porch, the gray stucco, the white trimmings and the stained shingles of the upper story harmonize to a surprising degree. With the brick chimney this means a great many different textures of different sizes which presents a difficulty because of the resulting contrast. The general effect in this case is pleasing but the home builder is advised to use caution in patterning after this idea.

The plan shown herewith would be reversed for the house as it was built and as it appears in the illustration. The living room is magnificent, extending across the entire front with a fireplace located at one end and vistas of the stair and dining room with its sideboard from the entrance. There is a coat closet, rear entry with refrigerator, rear porch and the kitchen is very complete.

On the second floor are three chambers, four closets and a good bath room furnished in white enamel with birch floors. The first story is in oak with oak floors except kitchen in birch. The basement contains laundry, furnace and storage space. The cost as described is estimated at $3,850.

Design B 253.

This is certainly a very compact little plan and the design of exterior eliminates many things that cost money. There is no expensive cornice or wide projecting eaves and the details are of the simplest. The lower story is sided and the upper is of shingles. In spite of the simple treatment it looks very cosy and homelike with its vine-clad porch. In addition to the usual living room, dining room and kitchen, there is a library which makes a moderate sized chamber if desired. There are three good chambers each with a closet and a bath room on the second floor.

The first story is finished in cypress and the second story in yellow pine. The heights of stories are 9 feet and 8 feet 6 inches respectively. The house contains a furnace and the architect states that it cost $2,300.

Design B 254.

This bungalow is built in the South and has no basement, the foundation having been carried only through the black soil to firm ground. The walls are sided and are protected by wide projecting eaves. The porch piers, wall, buttresses, terrace and chimneys are of stone which is abundant locally. The living room has light on three sides and contains a large fireplace. At the right is a chamber, bath and a large sleeping room with many windows. At the left is dining room, pantry, kitchen, rear porch and linen closet. The finish is in hard pine and stoves are used for heating. The size is 33 feet by 54 feet without front porch. The cost is estimated at $3,300.

Design B 255.

This is an all stucco exterior with trimmings in white painted wood. The square openings of the porch make it possible to screen it in without much difficulty. The rooms are of generous size and attractively arranged to produce pleasing vistas. From the hall containing the stair one can see through the columned opening to the living room with its beamed ceiling, fireplace and bay window. The dining room separated from the living room by sliding doors has also a beamed ceiling, and a sideboard. A sun porch at the rear of this room, makes a delightful place to serve meals in summer. There is no pantry, but a small "pass" with a door at each side effectively excludes the kitchen odors. There is a rear stair in combination with the main stairs, a well appointed kitchen, entry for refrigerator and a rear porch. The second story contains four chambers, in one of which is a fireplace, numerous closets,

The finish of the main room is white oak with birch elsewhere. In the basement is the laundry, hot water boiler, fuel bins and storage rooms. The size upon the ground is 28 feet by 41 feet 3 inches exclusive of front porch. The architects state the cost at $6,500. It must be understood that this is a very complete house of good material. Some saving might be had by omitting some of the less essential features.

Design B 256.

The lower story of this attractive house is of brick with stucco finish above. The living room is of splendid size, contains a fireplace and in common with the hall and dining room has a beamed ceiling. The house is very complete as to modern conveniences and contains both front and rear stairs. The finish of the main room is of dark stained oak, the balance selected red brick with white enamel in bath room and lavatory. There are four chambers, a boudoir, sitting room and bath room on the second floor and a good attic. Basement under whole house, containing laundry, hot water plant and storage. Size 34x36 feet 6 inches without projections. Basement 7 feet 6 inches, first story 9 feet 5 inches, second story 8 feet 3 inches. The architect states the cost at $7,500.

Design B 257.

This design is somewhat pretentious with its brick and stone porch piers. The exterior is of shingles stained, with sash painted white, giving a very bright and sparkling appearance. The living room communicates with the dining room by a wide cased opening and the kitchen in its location behind the dining room gives a very convenient arrangement. Two chambers and a bath room are located upon a private passage in which is the linen closet. The rear portion only is provided with basement room, in which the furnace is located. There is no attic. The refrigerator is located in the entry from which the basement stairs go down, making a very convenient arrangement for the removal of ashes, it being practically an outside entrance.

The ground space is irregular, being 30 feet wide and from 29 feet 6 inches to 37



John Henry Newson, Architect

A Composition on Craftsman Lines

DESIGN B 251

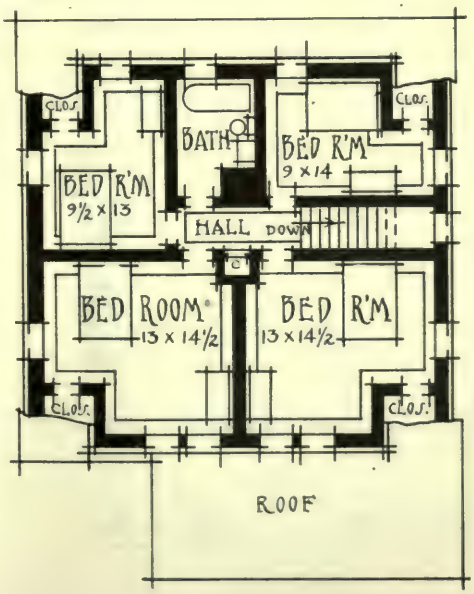
feet in depth exclusive of porch. The story is 9 feet high and the estimated cost as described is $2,800.

Design B 258.

This modern six-room cottage is exceedingly compact in arrangement and

(Continued on page 407)



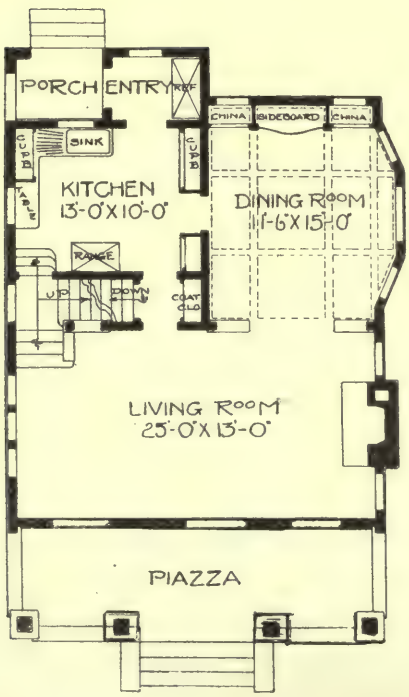


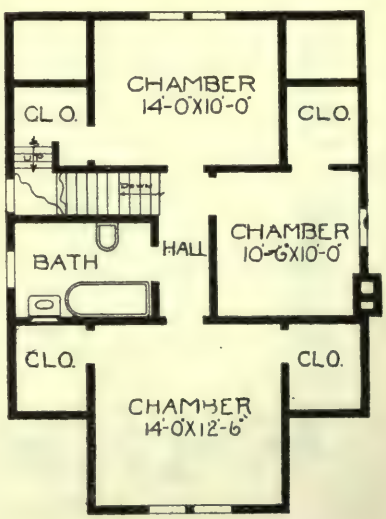


Glen L. Saxton, Architect

A Good Combination of Various Materials

DESIGN B 252







A. M. Worthington, Architect

Siding and Shingles in Effective Treatment

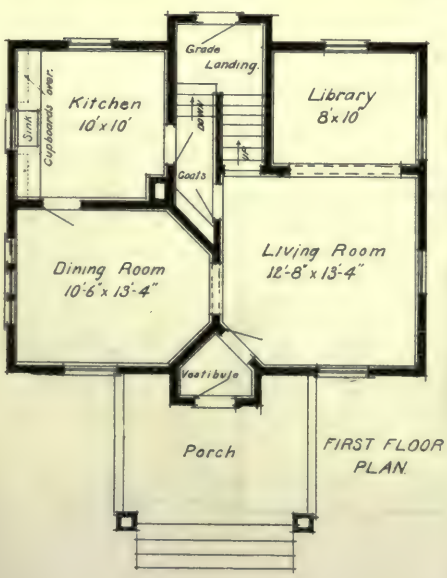
DESIGN B 253

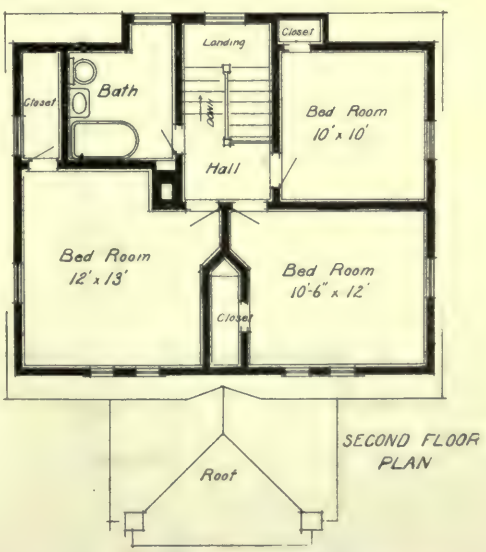
DESIGNS FOR THE HOME-BUILDER—Continued

economical in the use of space. The rooms are quite large for so small a cottage. The living room has a handsome mantel in pressed brick. The dining room is fitted with a built-in china cabinet.

There is a full basement with a hot air heating plant installed and a pair of laundry trays. Finish of the main rooms

(Continued on page 408)







W. C. Northup, Architect

The Stonework Is An Impressive Feature

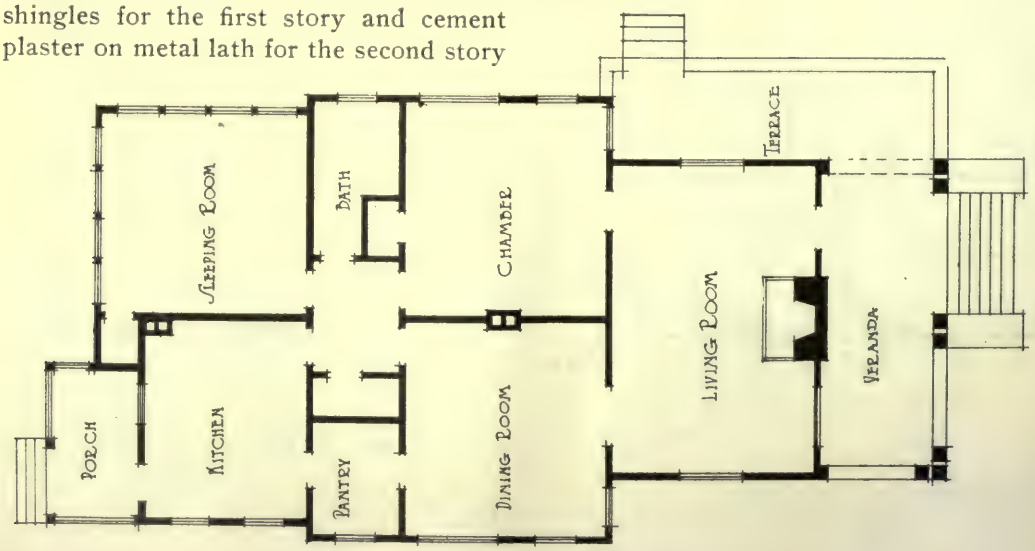
DESIGN B 254

DESIGNS FOR THE HOME-BUILDER—Continued

of the first floor is in birch with hardwood floors first story, second story hall and bath.

The stone columns to front porch are a pleasing variation of the round turned columns. The finish of the exterior is shingles for the first story and cement plaster on metal lath for the second story and dormers.

Width, 22 feet; depth, 28 feet; height of basement, 7 feet; first story, 9 feet; second story, 8 feet 3 inches; lowest height, second story, 7 feet. Estimated cost, $2,750.

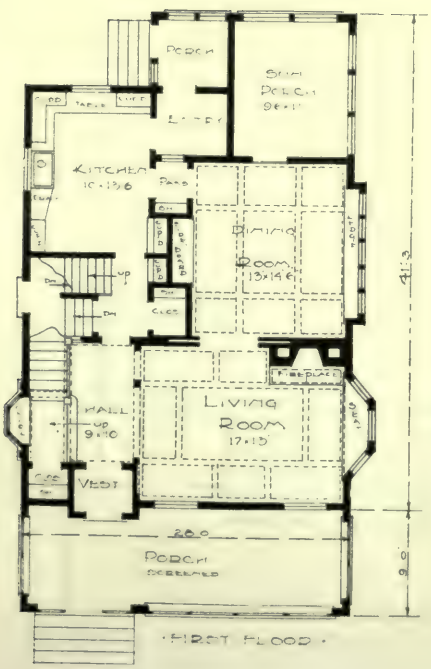


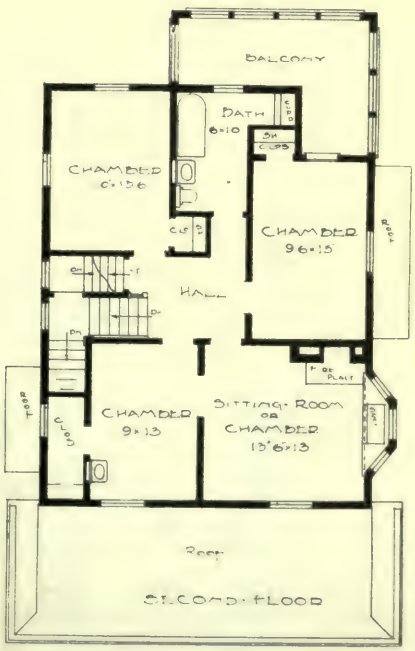


Downs & Eads, Architects

An Attractive Stucco Exterior

DESIGN B 255



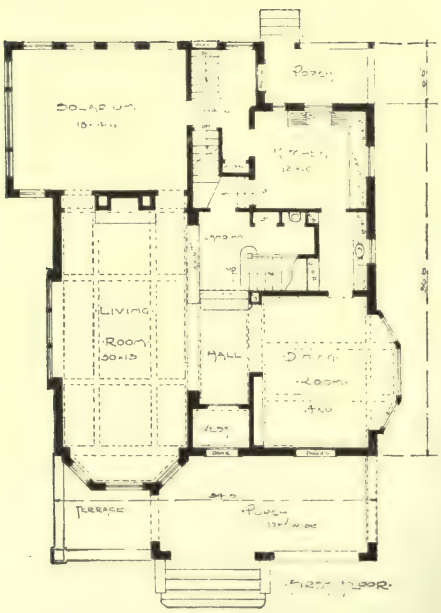


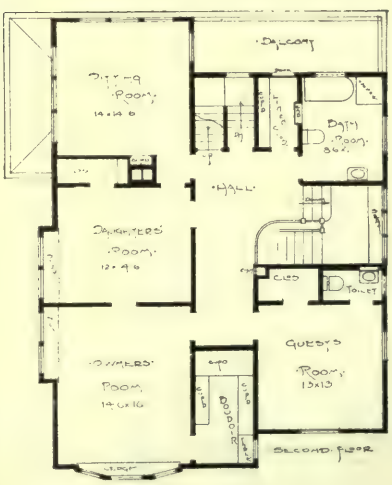


Arthur C. Clausen, Architect

A House of Several Gables

DESIGN B 256

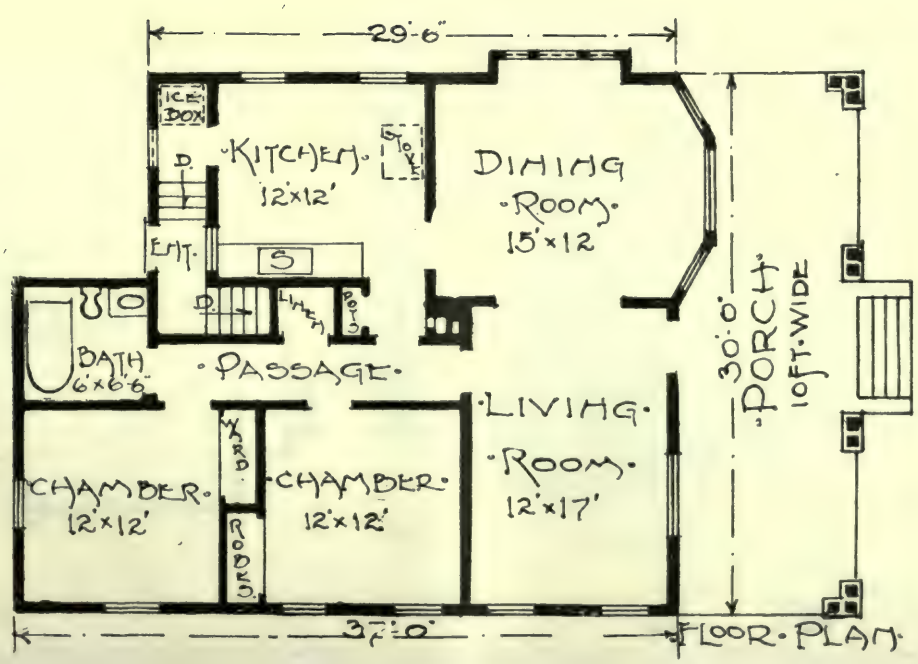






A Pleasing Porch Treatment

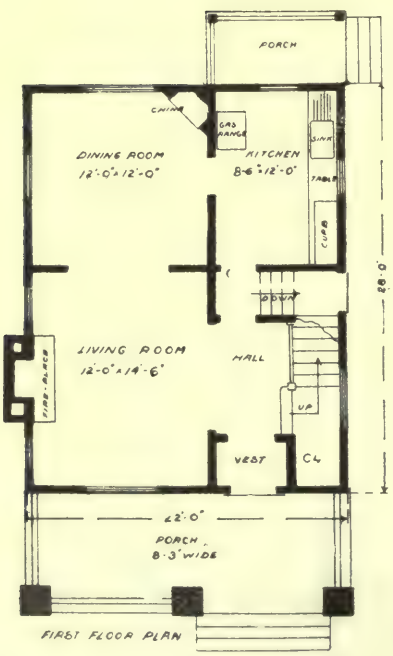
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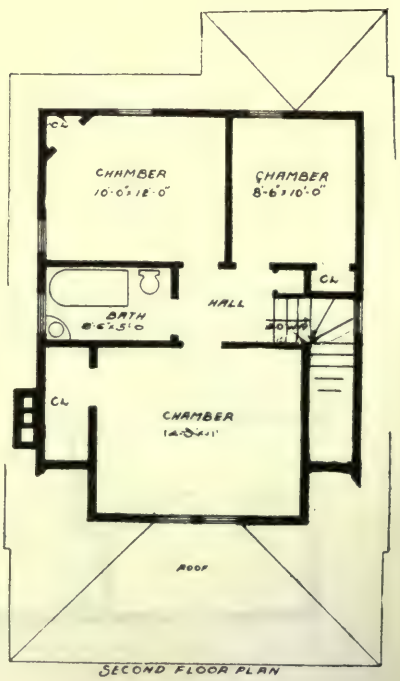




Shingles and Cement in Picturesque Composition

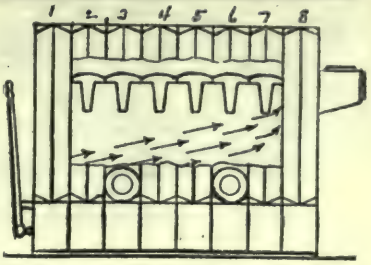
DESIGN B 258



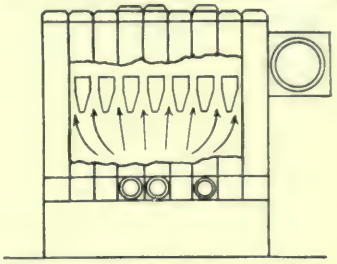


The Truth About Boilers

Being Number Two of Six Frank Talks



The arrows in this sketch show how boilers constructed with flue openings at back of boiler, draw the flames away from the front sections, impairing their efficiency.



With The Burnham there is a flue between each section on both sides of the fire chamber. The flames come equally in contact with each section making every section equally efficient.

FRANK Talk Number One told the whole truth about deep fire pots, direct and indirect fire surfaces and just what they had to do with any boiler's economy in general and the Burnham's in particular. It's general trend spelled "how to save coal."

In that talk we compared the tea kettle with the boilers. Now let's compare boilers and *a boiler*—The Burnham in other words.

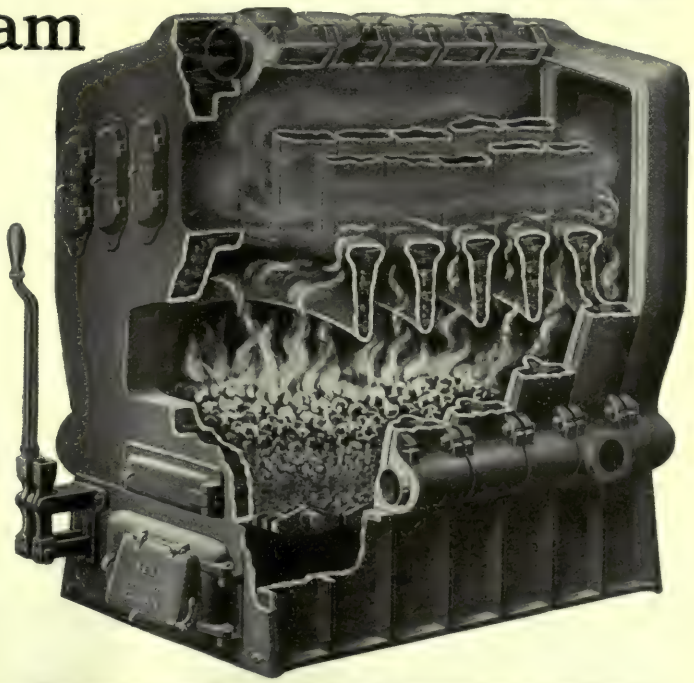
To get back again to the boiler economy—you can well see that if the flue opening for the passage of the gases and smoke, be at the rear of the fire box, that the draft will draw them diagonally from the front to the back of the boiler as shown in cut No. 1. It is obvious that the rear sections must then be kept hotter than the middle or front ones. In short, each section is not equally efficient which seriously effects a boiler's economy.

The Burnham

however, has flue openings between each section on each side, which allows an equal amount of hot gases to reach each section equally. As a result each section in the Burnham *is equally efficient.*

It's plain to be seen that the more heat a boiler harnesses up, the less coal you will have to buy—and as we understand it, you want to spend as little as possible for coal. This being so, and you being about "ready to talk boiler," why not write us and give yourself the opportunity of knowing thoroughly every one of the Burnham's economy strong points.

We will not hound the life out of you to buy, but you will get some straight, strong boiler economy facts, and it is facts you are after.



This cut-away view shows you the internal construction and workings of The Burnham Boiler.

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Conducted by ELEANOR ALLISON CUMMINS, Decorator, Brooklyn, N. Y.

THERE are some terms which are common enough to people who make a study of decoration, which are extremely puzzling to lay folk. Perhaps a little explanation may be helpful to some of our readers.

Take the term drop ceiling. It is used to signify the sort of wall treatment in which the ceiling is painted or tinted, in plain color, and the tint carried down to the picture moulding on the side wall. This coloring is absolutely plain, applied to ceiling, cornice and side wall alike. The amount of side wall surface covered varies with the height of the room and its proportions. For the average room, nine or ten feet in height, a drop of a foot and a half or two feet below the cornice line is the usual thing. When the openings of the room are very high and narrow, a lower drop is advisable, and the moulding should fall several inches below the top of the door and window frames. A continuous line around the walls of a room is always to be avoided. To grasp the principle of broken lines is to solve a great many decorative problems.

The Upper Third Treatment.

When the drop is approximately one-third of the whole height of the wall, we have the upper third treatment. This is admirable for small bed rooms, with flowered paper, as it corrects the disproportionate height of the walls. Moreover the expense of light toned surface is an agreeable foil to the pattern of the lower part. Occasionally this arrangement is reversed, and the lower part of the wall is in solid color, with a figured paper for the upper part. A new application of this treatment is to have a lower wall of blue or green, with an upper third of gray or cream, with a cut-out border just below the ceiling line. The variations of this upper third treatment are excellent for the rooms of new houses which cannot be papered, and must be tinted. The objection to it for the average living room is that it is not easy to hang pictures of any size on a wall so treated. An exception is for dining rooms, which are sufficiently ornamented with their display of silver, glass and porcelain. And it is excellent with a heavily beamed ceiling.

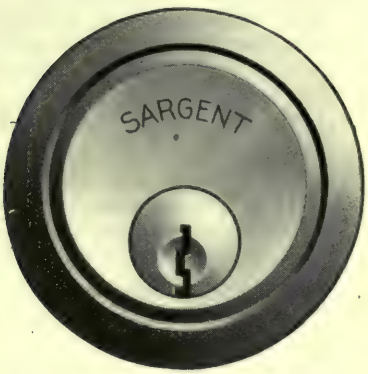
Nature's Use of Color.

Many people are unable to understand why the combination of colors which is exquisite in a flower bed cannot be transferred bodily to the interior of a house, and are astonished to find it crude. The color of a leaf or a flower, at close range, is extraordinarily vivid, as much so as the brightest wall paper, yet the wall paper is not a pleasant companion. But we do not see nature at close range, we see flowers and birds and trees at some distance, and through a gray veil of atmosphere, which tones down all the vividness, fusing the strong contrasts into harmony. Nature's tones of color are all low, and to get her results you must tone down pure color with black and white.

What is Meant by Warm Color?

Of the seven colors of the spectrum, three are warm, red, yellow and orange, four cool, violet, indigo, blue and green. All these colors are susceptible of various modifications when combined with each other, or with black and white. Red and black make brown: tone it down with black and white and you get a gray brown, a cool tint. Gray, a compound of black and white is negative, but modify it with yellow and you have a warm

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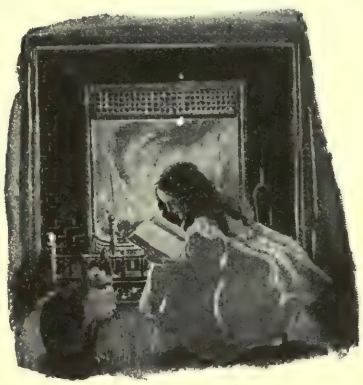
SARGENT & COMPANY, 151 Leonard St., New York

gray, with blue you get a cool tone. Tone red down with white and you get pink; give it a touch of yellow and you have a warm tone, of blue and you get a cold pink. And so on; there is almost no limit to the possible variations. The word rich is frequently used as applied to color, and is sometimes misinterpreted. Generally speaking a rich color is a warm color of medium tone. A strong orange, with a brown tone, a bright deep red, a dark yellow, these are rich colors. The cool colors are not rich in themselves but may gain the quality from the fabric to which they are applied, a brocade, or a velvet.

Plate Rail Points.

The precise distance of the plate rail from the floor is another matter which is not clear to many amateur decorators. There are two ways of looking at the plate rail; one is as an extension of the china closet, the other as a decoration of the room. In the latter case the rail serves for the display of a collection, and the line may well be higher than if the plates are to be frequently taken down. It is a capital disposition to make of a large quantity of old china, possibly all of it of one pattern. In the dining room, finished in a combination of light oak and white paint, mentioned in the last number of the magazine, the china was all of one pattern, plates ranged around at regular intervals, with platters above the doors. A plate rail used in this way may very well be eight or more feet above the floor, provided that a sufficient space is left above the plates. With a rail at that height a drop ceiling is essential; any other treatment of the side wall would look patchy.

If, on the contrary, the plates are in more or less frequent use, the rail should not be more than six and a half feet from the floor. With a rail set so low, it is often desirable to treat the upper section of the wall with a special view to giving the plates an effective background. For instance, if the lower wall is burlap of a low toned green the upper part may be covered with burlap in a lighter tone, of the sort which has a metallic sheen. Or



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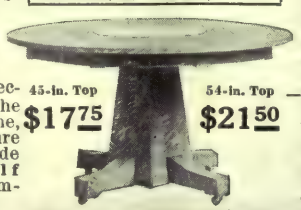
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with a golden brown paper in a large conventional design, the wall above may be covered with a plain ingrain paper, two or three shades lighter. With a striped paper, a tiny diaper pattern in two tones may be used, or the upper section may be covered with Japanese grass cloth, of some good tone. The greens and golds in this fabric make exquisite backgrounds for china, green for blue, the gold for bright colored wares.

The plate rail is at its best in a room with many openings and broken wall spaces. A row of plates twenty feet long is not pleasing. It is far better to break it with a mirror and have a plate rack on either side, taking care to balance it with some article of furniture below it. Another good arrangement is a china closet in the center of the space, with a small serving table on either side of it, with a plate rack above it.

Where there is a sufficient space between the top of a door and the ceiling, a bracketed shelf holding a large platter or a soup tureen, in some effective ware, looks extremely well, premising that it must never be on a line with the plate rail, or picture moulding. Here, again, is a case of the value of the broken line.

Furnishing the Country House.

Probably a considerable number of our readers have during the past year acquired some sort of a country domicile. There is a great deal of pleasure in building a house according to one's own ideas. Perhaps there is more in furnishing up the house built by someone else. The aim to set before one's self is a cheerful and artistic interior without too much expenditure of either time or money. The summer home ought not to be a burden in any sense of the word but too many people make it one, and so destroy very much of the satisfaction attaching to it. One does not wish to have to charter a car to carry the elaborate decorations of a city house to a mountain bungalow, or a seaside cottage. Perhaps few people do, but I have seen plush covered furniture, gilt-framed pictures and costly bric-a-brac, looking so woefully out of place in a summer house that it would seem as if they must have migrated from a town house.

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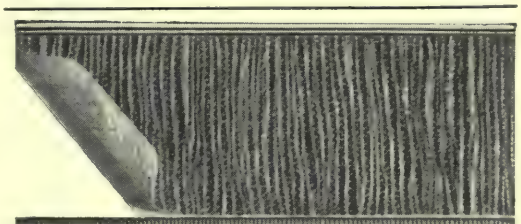
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the country house are those in which the carpenter has a large share. The panelled over-mantel, the built-in corner cupboard balancing the fireplace in another corner, the bookshelves fitted into a recess, or below a window, the settle at an angle to the fireplace, the two or three long shelves on the wall above a couch, the hinged shelf attached to a window sill, to be utilized for a desk at need, all these are within the skill of a local carpenter and are effective out of all proportion to their cost. With softly tinted walls, plenty of cretonne cushions and splint or wicker furniture, a few books, and the spoils of the fields and the woods for decoration, a house may be a delightful place, and allow its owner to be as nearly care free as possible.

Is It Worth Doing.

An ingenious gentleman wrote to a magazine sometime ago and told of buying a kitchen table for four dollars. He cut off the legs, he cross-braced them, he added turned feet, and at either end he inserted a sort of railing, and he paid a carpenter five dollars for these improvements, and when they were made he had a stained deal table. In any large city it would have been easy to find a fumed oak table on Mission lines for that sum, or a graceful affair copied from one of Chippendale's, in mahogany stained birch. Or he might have had a large choice of second-hand tables at the price of his kitchen table, or less, and a very little rubbing down by the ingenious gentleman would have made them look extremely well. The moral of which is that if you have plenty of leisure and more or less skill it may pay to remodel furniture, if it is of fairly good quality to start with. A deal table is not a good foundation for drawing roof furniture. Certainly it does not pay to employ a carpenter to transform it.

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Mercerized Damasks.

To be used as a foil to these brilliant cretonnes are small patterned, mercerized damasks, in low tones of green and blue, still further modified by a mixture of white threads. They cost a dollar and a half a yard, and are used for hangings and sometimes for wall coverings, in rooms where the furniture is covered with the patterned fabric.

Another purpose for which they are used is as coverings for the boxes of the utility cases, which are intended for the small articles of the toilette, gloves, ties, etc. With a framework of white enamel, the boxes will be covered with green damask, with a mahogany frame blue or rose is used. When these utility cases first appeared, the boxes were rather large, the framework hardly more than four corner strips, supporting the necessary number of shelves. The newer ones are much more finished in appearance, much resembling a music case with the front left out, and the boxes are numerous and shallow, so as to admit of much classification of their contents.

And, in this connection, it may be remarked that a man's shirt case, with the shaving glass replaced by a triplicate mirror, is a most useful piece of furniture in a woman's room, as the small drawers are just right for her various belongings, and almost any corner is big enough to hold it. It is an article which seems to have been primarily intended to occupy a place in an apartment house bedroom.

Thin Curtain Materials

Going through the stocks of materials for thin curtains one notices a great many cross barred materials, on the general order of scrim, many of them in ecru or butter color, and comparatively few Madrases of the cheaper qualities. An excellent quality of scrim, either plain or barred, costs thirty-five cents a yard, in forty-five inch width.

One notes also a return to the fashion of sash curtains, and some of those seen are very elaborate combinations of lace and drawn work, and several sorts of lace are used. A typical curtain had a four-inch band of Russian lace at the lower edge, next a line of fine torchon insertion, next a band of Russian insertion, while the body of the curtain is fine scrim with occasional insets of filet squares.



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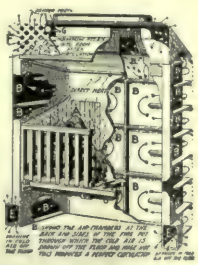
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ANSWERS TO QUESTIONS
ON INTERIOR DECORATION

Editor's Note.—The courtesies of our Correspondence Department are extended to all readers of *Keith's Magazine*. Inquiries pertaining to the decoration and furnishing of the home will be given the attention of an expert.

Letters intended for answer in this column should be addressed to Decoration and Furnishing Department, and be accompanied by a diagram of floor plan. Letters enclosing return postage will be answered by mail. Such replies as are of general interest will be published in these columns.

H. W. K.—Is building an eight-room bungalow, one story. He asks for advice as to the finish of two bed rooms and the hall, and about wall colors for the various rooms, all in sand finish and tinted.

H. W. K. Ans.—In the front bed room, in which you intend to use birds-eye maple furniture, would suggest having the maple woodwork finished so as to get as nearly as possible the tone of the furniture. Stain the floor a medium brown, have an ivory white ceiling with a two-foot drop on the side walls, and a maple picture moulding. Tint the walls old rose, and use flowered cretonne for furnishings. You will find effective imported cottons with old pink tones predominating, and some of the Persian patterned printed linens are good with old rose walls.

In the rear bed room, stain the yellow pine woodwork to match the golden oak furniture, the floor several shades darker. Use the same drop ceiling treatment as in the other bed room. For the walls use a very soft, medium gray-blue, with touches of pink in the furnishings. Or you may prefer a low toned green. With either treatment it will be an improvement to introduce some black, a laquered table, or a black painted wicker chair, ebonized picture frames, or wrought iron candlesticks. Brown rag rugs of medium tone will be suitable for both bed rooms.

In your long hall, with little direct light, and white wainscot of enameled plaster, paint the woodwork white. Stain the stairs and the floor and the hand rail mahogany, a brown rather than red tone, and color the walls a light, old red, with a white picture moulding at the ceiling line.

As to colors for the living rooms, with fumed oak woodwork and furniture: In the music room, with its northeast exposure, you will get a semblance of sunshine with a golden buff wall.

You can bring your mahogany piano into tone with the fumed oak by using an upholstery material combining reddish browns, gray browns and low toned greens, and a deep turquoise blue will give a pleasant note of contrast.

For the dining room walls, carry a gray-green tone to the plate rail, using a putty gray between the beams of the ceiling and above the plate rail. You will find this a particularly good setting for blue china, either Staffordshire or Oriental. In the living room an ivory white drop ceiling and a "burnt orange" side wall will look well, with furnishings in low-toned browns and greens.

W. B.—Asks for suggestions as to finishing an apartment, built for renting, which he wishes to have at once artistic and reasonable in cost.

W. B. Ans.—It would seem as if your prospective tenants would appreciate satisfactory floors enough to make it worth while to lay at least well seasoned hard pine, in narrow boards. Give them a coat of brown stain and have them waxed. Then instead of oak finish for the reception room, living room and dining room, use Oregon pine, stained and waxed. Whether to have beamed ceilings must be determined by the height of the ceilings. If they are less than ten feet would dispense with the beams, except perhaps in the dining room.

For the different rooms would suggest:

Reception room: Woodwork painted white, ivory white ceiling and two-foot drop. Side wall two-toned buff paper, large conventional design.

Living room: Woodwork stained a

'mid pleasures and palaces



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medium brown, ivory white ceiling, side wall paper combining tans and low-toned green, carried to ceiling line.

Dining room: Woodwork same as living room, beams running parallel with the shorter wall. Panelling to plate rail, and two-toned golden brown paper above it. Cream tint between beams.

Northwest bed room: White woodwork, tapestry paper in verdure effect, light, shadowy greens.

Northeast bed room: White woodwork. Cream ceiling, two-foot drop to white picture moulding, painted wall, delicate shade of old rose. Cut-out floral border, in delicate pinks and greens, carried around the drop, at the ceiling line.

Bath room: All white. Kitchen, sand finished wall, painted greenish gray; woodwork three shades darker.

L. R.—Is re-decorating a colonial house. In the living room, facing south and west, she wishes to use a rug in red, green and black, with a dark green filling. Dining room, western exposure, has blue and brown rug, dark oak furniture. The kitchen is very old and dark. One bed room, above living room, has mahogany furniture; another, over dining room, is furnished in birds-eye maple.

L. R. Ans.—For your large living room, which ought to be delightful with its view of the river, would suggest painting the woodwork a medium olive, a brown rather than green tone. Have a cream white drop ceiling, say two feet deep, although that must depend upon the proportions of the room, and below it lay a tapestry paper, in verdure effect, in greens. If the rug has much vivid red this will not answer, and you must use a paper with tans, browns and low-toned greens. You will find these combinations in tapestry papers. As the house is an old-fashioned one, why not dispense with the portieres, closing the doors when necessary? It would be more in keeping with the general tone of the house. If the marble mantelpiece is very ugly you can paint it to match the woodwork, but you can probably bring it into line by a judicious arrangement of bric-a-brac, and by hanging a large mirror above it. An open fireplace will help it.

In your dining room, by all means open the fireplace which has been boarded up. Retain the wooden mantel and have it and the woodwork of the room painted white, and stand brass candlesticks and blue china on it. You will have to have the bricks scraped, and could you not have the front of the fireplace refaced, either with brown bricks or with rough surfaced tiles? For the walls use a small figured paper in two tones of golden brown. A striped paper might improve the proportions of the room, but so old a house is apt to be out of plumb, and the stripes are sure to go astray in corners. With your dark oak furniture and your blue and brown rug, you ought to have a delightful room, and just the place for blue china.

In your very old and rather dark kitchen, paint the woodwork and the ceiling beams a medium brown, use the cement wainscot, letting it run up about four and a half feet on the side walls, and painting it white. Above it set a wooden moulding, painted brown, and color the upper part of the walls a light yellow (cowslip) or a pale buff.

In your large bed room, with the brass bed and mahogany bureau, would suggest using an all-over conventional patterned paper, in old blues on a white ground. Use a blue and white striped muslin or scrim for curtains and other furnishings, with old blue linen or denim for chair cushions, and for rugs dark blue or blue and white. Have the woodwork of both bed rooms painted white.

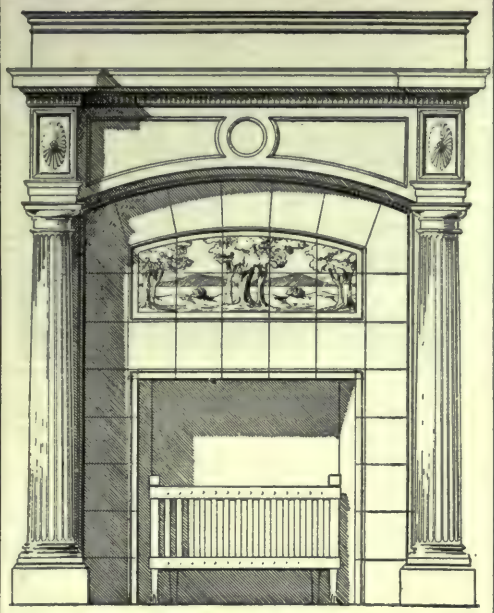
In the other bed room use a fabric paper in an undefined stripe, in old pink. This will be a good background for your birds-eye maple furniture, and you can use your lace bed set over a pink lining. There is an extremely pretty art ticking, with a design of pink hydrangeas on a white ground, which would contrast pleasantly with your pink walls. Have a valance and side curtains of it over thin white ones next the panes.



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The Perfect Hostess.

IT IS often said that hospitality no longer exists, that it has disappeared with the changing conditions of modern life, and it is undeniable that the number of people who entertain their friends at regular meals is relatively less than it used to be. In cities small quarters and the great number of good restaurants are factors in the change; in smaller places, where the influence of the foreign element of the population is less felt, the difficulty of getting satisfactory service has had much to do with it.

Still, when all is said and done, the end of the hostess is not yet, and admonitions as to her behavior are in order, for the average hostess and perfection are seldom synonymous. What are the characteristics of the perfect hostess? Are they not largely negative? She is not self-conscious; she is not ambitious; she is not fussy; above all she is not stupid.

We all of us know the self-conscious hostess, who never forgets herself, nor lets others forget her. She monopolizes the conversation, or she insists upon its following her lead. Nothing but great genius excuses her and great genius is as rare as a white peacock. She is a social nuisance because she is selfish and selfishness is always intolerable.

A great many women go to pieces on the rock of an undue ambition. They try to achieve with twenty dollars the results which cost their next door neighbor fifty, and to serve a ten-course dinner with one maid. The result is not happy, and the situation bears harder upon the guests than upon their entertainers. A sensible woman considers and accepts her limitations, and does not try to exceed them. "When can I come to your house and eat a chop and a mealy potato?" was the inquiry of a man who dined out, in great houses, almost every night of the season, and it expresses the feeling of most guests, who prefer quality to quantity and variety.

You may have the best dinner in the world, and perfect service, and no one will enjoy it if the hostess is in a tremor of anxiety lest some detail should go astray, and divides her attention between the face of the man who is talking to her and the door of the butler's pantry, and whose ears are strained to catch the echoes of some disaster in the kitchen. One-half of all this nervous energy expended in thinking out the details beforehand would save the guests a great deal of discomfort, and make many a poorly served dinner a success.

The stupid hostess is always well meaning. That is the tragedy of it. She may have dined twenty times with a man and never have noticed that he does not eat fish, and so feels that his declining it is a reflection upon the quality of her salmon. She quite innocently places someone else next to his pet antipathy. Or she insists upon carrying on a conversation on politics, or religion, or some local issue, with the result that half the company are perilously near to losing their tempers.

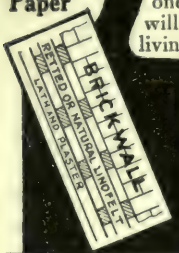
The perfect hostess does none of these things. May we not sum up her virtues in the one word, tact, that quality which is the birthright of some happy people, the hardly won acquisition of others, yet in some measure possible to everyone?

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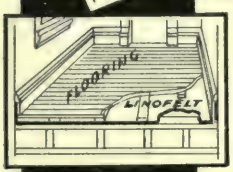
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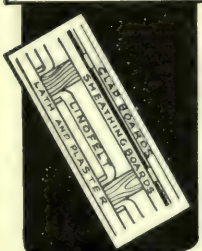
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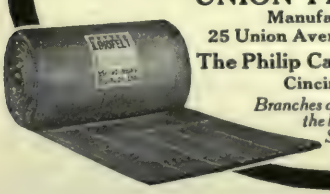


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Perfection in Little Things.

The average housekeeper fails to appreciate the value of finish. It is not the large things which give character to the house and its conduct, but the little ones. The general operations of housekeeping are essentially the same in every menage. It is attention to details which makes the difference between ordinary decent living and the fine flower of domestic perfection. Whether domestic perfection pays is a matter to be settled by the circumstances of the individual family, but the fact remains that it is a matter of small things.

It is attention to detail which underlies the perfection of French cooking. It is the fact that they never realize the importance of it which makes some cooks such poor ones. The appreciation of the value of exact proportion in flavoring, of the careful adjustment of heat to a given process, of the psychological moment when the stew or vegetable has reached perfection, seems to have been denied to them, and it is just this sense which the French have in perfection.

I speak of detail as applied to cooking, because most women have an instinctive sense of cleanliness, and the details which go to its perfection. But a great deal of training goes to the making of a good cook, whether she be lady or servant, and the best part of this training must be along the line of detail.

To take a concrete example. There is no dessert commoner than some form of bread pudding, none which is more uniformly bad. "Thanks, I don't care for poultice," may try the feelings of the lady of the house, but in most cases it describes the article with accuracy. The perfect bread pudding consists of a dishfull of small pieces of buttered bread, with a sweetened and salted custard mixture poured over them, allowed to stand until the bread is thoroughly soaked, and never touched with a spoon. Stir your pudding and you have a poultice. A trifle but the difference between the delicious and the merely edible. Yet, I do not remember ever to have seen this point mentioned in a cookery book.

Then there is hard sauce. Most people think they must have powdered sugar for it. But it is quite unnecessary and indeed the sauce is better made with granulated sugar, if you cream your butter, add half your sugar and mix thoroughly, and mix in a teaspoonful of boiling water before you beat in the second half of the sugar, and add the wine or other flavoring.

An Experimental Note Book.

It would make the pursuit of perfection very much easier if the housewife set herself to criticize the cooking of the common articles of food, as done in her kitchen, noting down the exact point of failure, with a view to correcting it intelligently the next time. To this criticism a note book and a pencil hung up in the kitchen, if she is her own cook, kept in her desk if she is not, is the only certain means.

Bulletin 256.

The U. S. Department of Agriculture publishes an admirable treatise on the use and preparation of vegetables, which will be sent on application to the Department at Washington. It is well to specify the subject as well as the number in writing. In addition to much general matter, it gives a variety of receipts for the preparation of all the ordinary vegetables, and also for those peculiar to special sections of the country.

"The Housekeeper's Week."

Marian Harland may be considered the dean of the housekeeping profession, in this country and, as such, her latest book should interest everyone concerned in the care of a house and family. "The Housekeeper's Week," covers the entire field of domestic enterprise, from Monday morning to Saturday night, and is replete with valuable suggestions for every department of the household. Not the least interesting part of the book are the illustrations, evidently bits of Mrs. Terhune's own domestic interior.

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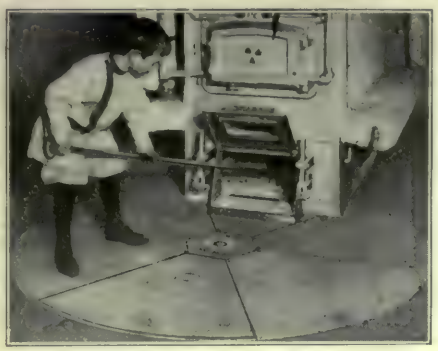
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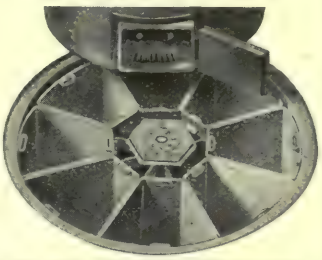
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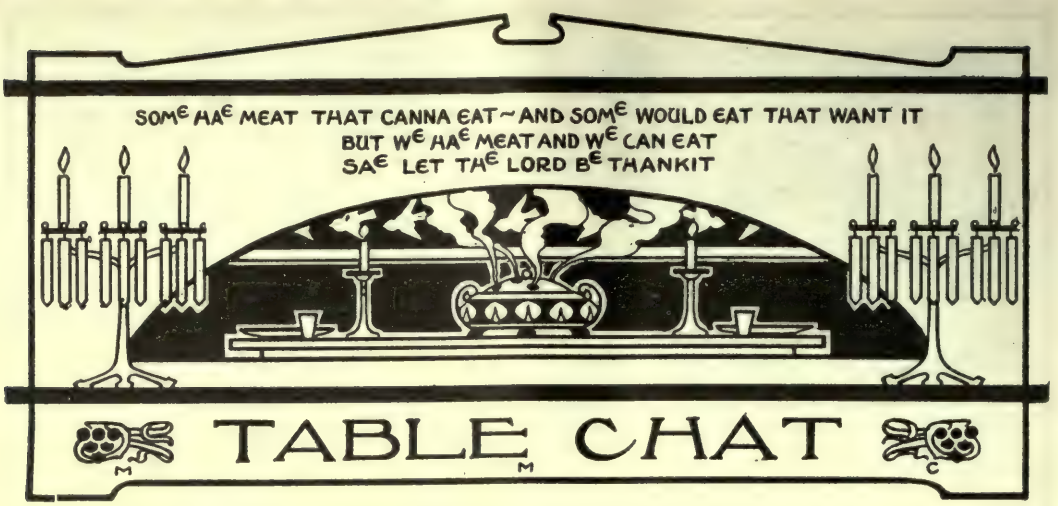
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Preparing and Serving Vegetables

By BEATRICE D'EMO



USE THE MEDIUM SIZED STALKS OF ASPARAGUS TO SERVE ON TOAST. TIE IN BUNCHES BEFORE BOILING. SLIP A RING OF RED OR GREEN PEPPERS OVER EACH BUNCH, REMOVE THE CORD AND SERVE

MEAT lovers though we may be in winter, for then the system feels the need of heat-giving, strong food, when the warm days of spring arrive we turn with zest to the fresh, green things which Mother Nature spreads for our feasting, and fresh vegetables like fresh fruit should form the major part of every meal after the mercury in the thermometer begins to show a preference for the upper part of the tube.

The cookery of vegetables is not such a simple task as tyros in the domestic arts seem to think. Even to boil a potato so that it is of full flavor and attractive appearance requires some little skill, and the most delicious products of the kitchen garden fresh from the picking may be rendered tasteless and unwholesome by careless preparation.

All summer vegetables that require boiling should be put in boiling—not cold—water, as they are so tender that the length of time necessary for the cold water to become heated would soak out much of their flavor. Old vegetables such as are on hand in winter are improved, not only by being put on to cook in water which is cold at first, but by soaking an hour before cooking.

Preparation of Vegetables.

As much of the flavor of such vegetables as young potatoes, beets, carrots and parsnips lies close to the skin, as

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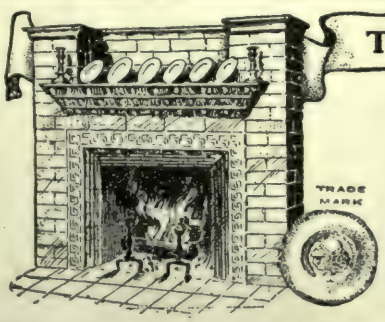
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WHEN BAKING STUFFED TOMATOES THE TOP SHOULD BE FASTENED WITH TOOTHPICKS OR SMALL SKEWERS. BAKE IN AN EARTHENWARE PUDDING DISH FOR FORTY MINUTES AND SERVE WITH PARSLEY FOR GARNISHING

much of this covering as possible should be left on while cooking. Beets should be well washed, the roots trimmed close and the tops cut off to within an inch of the bulb; potatoes, carrots and parsnips should be well scrubbed with a rough hand brush, and young turnips should be pared as thinly as possible. Any fragments of skin left on the carrots, parsnips or turnips can be easily rubbed off after the boiling, and the young potatoes and beets can be slipped out of their jackets with the same readiness.

As it is not always possible to obtain really fresh vegetables when one must depend upon city markets, those which are heated from being exposed on the stalls, or those which appear wilted may be made far more palatable by washing in very cold water, and contrary to the rule for newly picked green things, may even be soaked in cold water for an hour or so before cooking, but do not, unless there is no help for it, purchase stale vegetables, and after bringing the marketing home do not let the green produce wait in the hot kitchen until cooking time.

Time Table for Cooking Vegetables.

The following table will probably be of value to the inexperienced cook, but she must also gauge herself by experience as it comes to her:

Peas from a quarter to half an hour, depending upon size and age.

Onions from half to three-quarters of an hour.

Turnips from half to a full hour.

Asparagus fifteen to twenty minutes.

Carrots three-quarters to a full hour.

Green corn if young five minutes; older ears ten minutes.

Parsnips half to three-quarters of an hour.

Cauliflower and young cabbage half to three-quarters of an hour.

String beans an hour and a half to two hours.

Spinch from ten to fifteen minutes.

As salt in the boiling water increases its heat and consequently its cooking properties, about a heaping tablespoonful should be put in for every two quarts.

Thanks to the Southern markets, asparagus, one of the most delicious and healthful of the early vegetables, is to be had in the Northern States at fairly reasonable prices from the middle of April. When it is at its best it has such a fine flavor of its own that it is a pity to spoil it by any but the simplest cooking. The

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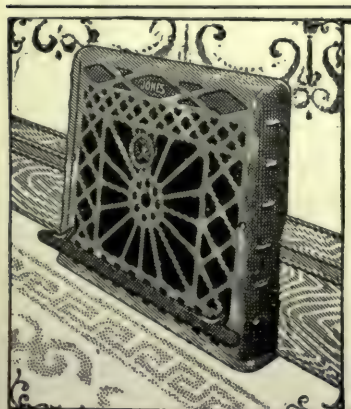
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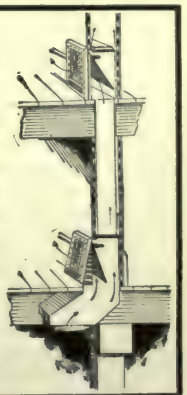
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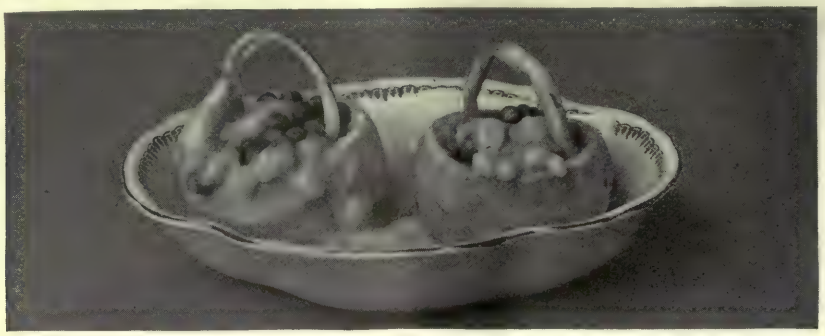
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PEAS IN TURNIP BASKETS IS AN ATTRACTIVE WAY OF SERVING WHICH ADDS A RELISH TO BOTH VEGETABLES. MELTED BUTTER, PEPPER AND SALT MAKE A PALATABLE DRESSING

medium-sized stalks are the most flavorsome, and when purchasing be sure that these are crisp and the heads straight and stiff. If wilted they will hang dejectedly. Wash and scrape the stalks, or if very young merely rub them with a rough cloth. Lay in neat bunches with the heads all in one direction; trim the ends evenly, tie each bunch with clean white cord and plunge in rapidly boiling salted water. Boil for ten or fifteen minutes, and meantime make rather thick slices of toast, using whole-wheat bread by choice. Butter this generously. Lift out the bunches of asparagus by slipping the tine of a fork through the cord, lay a bunch on each slice of toast, cut and remove the cord, and serve piping hot with melted butter for sauce. Another dressing frequently used is Hollandaise sauce, which is made by creaming a teaspoonful of butter with an equal quantity of flour, then stirring this into half a cupful of milk and cooking until all is smooth and rather thick. Beat the yolks of two eggs, remove the white sauce from the fire and beat the eggs into it, then stand the whole over boiling water—a double boiler is best for making this sauce—and add by degrees another teaspoonful of butter and one of vinegar, seasoning to taste with salt and white pepper or cayenne. Beat the whole until it is smooth and creamy. Lemon juice may be substituted for the vinegar. A pretty finish may be given the dish of asparagus by before serving slipping over each bunch a ring of scarlet Spanish pepper.

Roast Lamb With Vegetables.

With roast lamb peas are the natural accompaniment, also young carrots and turnips, but only one of the latter should be served at a time, as both are rather watery vegetables, but either can be attractively combined with the peas, not only as regards flavor but appearance. For this style of serving rather thick carrots should be selected, the ends cut off, and the carrot split in half lengthwise, then after it is boiled in salted water until soft, but not mushy, remove it from the water and scoop out a cavity in the cut side. Chop what is removed, mix with freshly boiled peas and pile in the carrot cavity, then pour a white sauce made as for the foundation of the Hollandaise sauce over the whole and serve very hot. For the peas in turnip baskets select young white turnips of good shape. Wash, pare, and cut in half. Cut a thin slice from the thickest part, which reserve, cooking the halves in boiling salted water until soft. Scoop out and fill as for the carrots, then make the handles from the reserved raw slices and pour on the white sauce, or simple melted butter, pepper and salt.

Eggplant.

Eggplant is so rich and solid that either fried plain or in batter or stuffed and baked it makes an excellent substitute for meat, and can be served as a meat course to the satisfaction of nearly every one. To fry it in slices, wash the whole plant, then cut in slices a quarter of an







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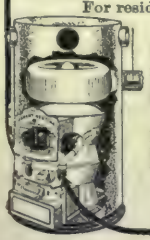
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inch thick and soak in salted cold water for a couple of hours to remove the acrid taste. Dry each slice, dip first in beaten egg, then in cracker crumbs, and fry in butter until of an appetizing brown. Serve piled on a napkin-covered meat platter. To fry in batter, pare, cut in small pieces and soak for an hour, then cook until soft. Drain and mash. Make a batter of one egg, a cupful of milk, a teaspoonful of baking powder, a pinch of salt and flour enough to give the usual thickness. Stir the eggplant into this and drop by tablespoonfuls in boiling hot fat, cook to a light brown and serve at once. For stuffed eggplant select a round plant, remove the stalk and wash the outside but do not peel. Cut off the top about a third of the distance down. Parboil both pieces in boiling water for five minutes, then wipe dry, scoop out the center of the larger piece and a little of the upper one. Make a stuffing of a pint of bread crumbs mixed with two onions chopped fine, a piece of butter the size of an egg melted in a cupful of boiling water, a teaspoonful of powdered thyme, salt and pepper to taste and two well-beaten eggs. With this fill the plant, and fasten on the top either with skewers or by tying, and having put in a baking dish dredge with flour and bake for an hour, basting frequently with a heaping tablespoonful of butter melted in a cupful of boiling water. When done remove to a hot vegetable dish, thicken the gravy with a little browned flour and pour over the eggplant.

Tomatoes.

Another vegetable which lends itself most agreeably to stuffing is the tomato, and in this form it makes a tasty accompaniment to roast beef or steak. The tomatoes should be firm, perfect and of good size. Cut a slice from the top as pictured, scoop out the center, which mix with a cupful of bread crumbs to every four tomatoes, a small onion sliced, then minced, a teaspoonful of butter, and salt and pepper to taste. Fill the tomatoes with this, fasten on the tops with wooden toothpicks or small skewers and bake in an earthenware pudding dish for twenty minutes, putting a little water in the dish to prevent burning. Serve with parsley garnishing. Sweet Spanish peppers or Spanish onions may be stuffed and baked in similar fashion. Tomatoes may also be stuffed with young corn cut from the cob, mixed with a little minced onion and melted butter.

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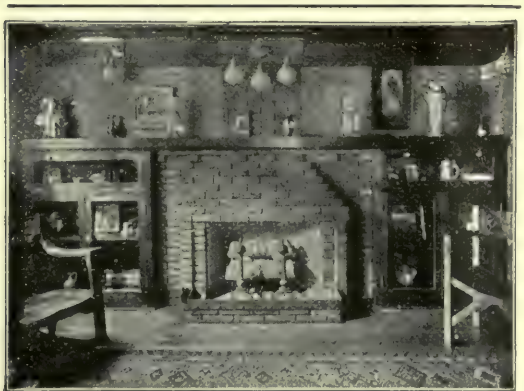
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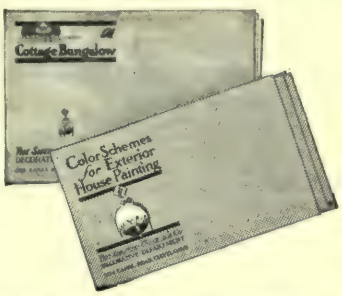


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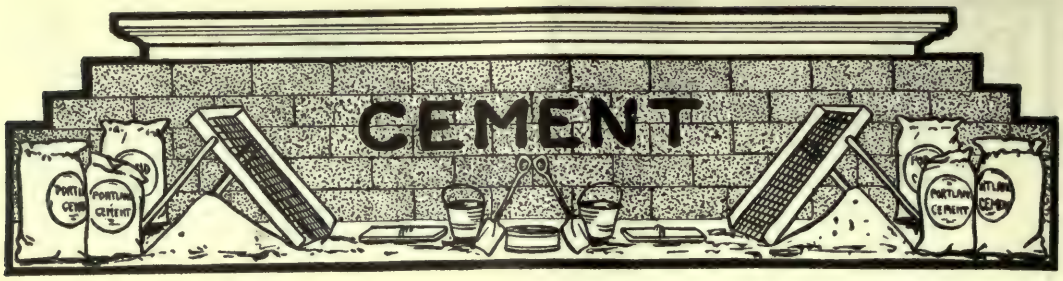
showing all the rooms in colors and specifying the actual materials for securing the same beautiful results in your own home. Complete specifications are given to produce the effects shown, not only for the finishing of the walls, ceiling, woodwork, floors, etc., but also suggestions for the curtains and draperies, the rugs and furniture. You can adapt any or all of the color combinations in our Cottage-Bungalow, or our Decorative Department will prepare special suggestions upon receipt of blue-prints, drawings or descriptions of your home or other buildings.



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A SCHEME for washing gravel has been in use at Bangor, Maine, where construction has been under way for some time on a new mechanical filtration plant. The concrete aggregate is delivered in piles near the work and carried from them to the mixer in wheelbarrows. The gravel contained a certain amount of loam and it was considered necessary to wash it before incorporating it in the concrete. To accomplish this, says the Engineering Record, holes were punched in the bottoms and sides of the wheelbarrows, converting them practically into sieves. Between the mixer and the storage piles a water pipe was connected up as shown, with a large perforated nozzle at its discharge end. Each wheelbarrow load of gravel on its way to the mixer was rolled under the nozzle and streams of water discharged upon it, the material being churned about with a spade to expose the lower part of the load to the cleansing action of the water. The water and the loam which it flushed out passed out through the perforations in the wheelbarrow and the clean gravel was then carried to the mixer and used.

Bonding Successive Layers of Concrete.

Joints between successive layers of concrete which are considered very satisfactory by the maker have been obtained by the following treatment: The approximately horizontal surface of the concrete which is to be bonded to a subsequent layer is allowed to stand until any water which may have flushed to the top disappears. Then, while the mass is still moist, the surface is covered with about one-half inch of a 1:1 dry mixture of cement and sand, and protected if necessary with tarpaulins or boards. The moisture still remaining in the concrete suffices to produce a partial set in the dry mixture immediately adjacent to the surface of the concrete and above that to affect the mixture in a diminishing degree, the upper part of the mixture being unchanged. When it is convenient to apply the next layer of concrete the moisture in it completes the set through all of the unhardened dry mixture, interlocking the two courses, as it were. The joint between the two layers of concrete, although visible, is stated to make a much stronger bond than is usually secured.

A number of briquettes have been made of cement mortar cast in two parts and connected by a joint formed in this manner, and when tested developed a strength of more than 50 per cent of the normal briquette of the same mixture made in a single piece.

This form of bond between successive layers of concrete, says the Engineering Record, was devised and has been extensively used by Mr. J. A. Jamieson, of Montreal, Canada, in the construction of a reinforced concrete elevator, a reinforced concrete conduit ten and one-half feet in diameter and 8,000 feet long, working under thirty-three feet head, and for other works.

Whitewash for Concrete Surfaces.

Common whitewash has been used on concrete surfaces, particularly of residences and small buildings, in order to give a white, rather than the gray, cement tone. It is frequently lacking in durability, however, and the "Cement Age" therefore suggests that better results where greater adhesion is desired may be obtained with the whitewash used by the government on its lighthouses. The following formulas for whitewash and cement wash have been furnished to the above journal by the Department of Commerce and Labor. The formula for whitewash, the department states, has been found by experience to



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Factors

AMBLER, PENNSYLVANIA

answer on wood, brick and stone nearly as well as oil paint, and is much cheaper.

Whitewash.—Slake half a bushel of unslaked lime with boiling water, keeping it covered during the process. Strain it and add a peck of salt, dissolved in warm water; three pounds of ground rice put in boiling water, and boiled to a thin paste; half a pound of powdered Spanish whiting, and a pound of clear glue, dissolved in warm water; mix these well together and let the mixture stand for several days. Keep the wash thus prepared in a kettle or portable furnace, and when used put it on as hot as possible with painters' or whitewash brushes.

Cement wash for the outside of lighthouse towers.—Take of fresh cement 3 parts, clear sand 1 part, and mix them thoroughly with fresh water. This will give a gray or granite color, dark or light, according to the color of the cement. If a brick color is desired, add enough Venetian red to mixture to produce that color. The cement, sand and coloring matter must be mixed together. If white is desired the walls, when new, should receive two coats of cement wash and then whitewash. After the work has received the first coat a single coat every three or four years will be sufficient. It is best to thoroughly dampen the wall with clean, fresh water, and follow immediately after with the cement wash. This course will prevent the bricks from absorbing the water from the wash too qiuckly and will give time for the cement to set. Care must be taken to keep all the ingredients of the cement wash well stirred during the application of it. The mixture must be made as thick as it will admit of to be conveniently put on with a whitewash brush.

Tarpon Springs, Fla., Dec. 22, '09

Gentlemen:
Enclosed find check for $1.00, to apply on my subscription. Am well pleased with your paper, and consider it one of the best cement magazines published.

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Scottsbluff, Neb., Dec. 22, '08.

Gentlemen:
May I ask you to send me another December copy of THE CONCRETE AGE. For some reason my copy got wet in the mails, and was ruined. Would not like to miss a single issue.

Yours truly,
O. J. Hehnke, Architect.

Collapsible Concrete Forms.

James Peery of Humboldt, Kans., has applied for a collapsible form for constructing concrete walls. The form is simplicity in itself, can be erected quickly and easily without necessitating skill. When once erected the forms will stand solid and the concrete which is poured will produce a straight, solid, smooth wall. Any thickness of wall can be built. Adjustable guides and ties hold the form in position, after a certain height of wall has been completed, the forms are removed, erected on top of the completed wall and the process continued as before. This system simplifies wall construction and erection cost considerably. Long study and extensive experimenting on behalf of the inventor resulted in a perfected form. The cost of these forms does not exceed $200 for the construction of a $10,000 residence, and can be used for years.—Cement Record.

Constructing a Fireproof Dwelling.

A builder described as follows his method of constructing a fireproof dwelling:

"The first floor was constructed of ferro-lithic plate, plastered underneath, and concreted on top to a depth of two and one-half inches. These floor plates rest on concrete girders having a special reinforcement which also took the place of false work for the beams. The girders, in turn, are supported by concrete piers. In the second floor construction specially designed I-joists, five inches deep, were employed. These joists rest on an angle wall-ribbon, which

A Much Better Wall Can Be Built

with *Sackett Plaster Board* than with lath. Wood lath absorbs moisture when the wet plaster goes on, and swells. Then it afterwards dries out and contracts, pulling away from the plaster. The result is a loose wall which is liable to crack, and is neither fireproof nor soundproof. If such a wall or ceiling happens to be made of lime mortar and gets wet, the plaster loosens and falls—there is no strength in it.

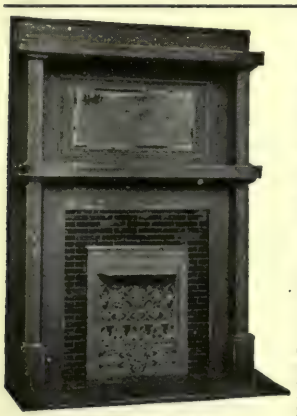
Sackett Plaster Board

on the other hand, is fireproof and does not swell or buckle under any conditions. It is composed of alternate layers of calcined gypsum and strong fibrous felt, cut into sheets 32 x 36 inches—every one uniform—and about as thick as ordinary wood lath. Sackett is nailed direct to the studding, furring or joists, just the same as any other lathing material, and makes a firm, even surface for the plaster coat. If U. S. Gypsum Plaster goes on, the wall becomes a monolith, as solid as a rock, fireproof and soundproof.

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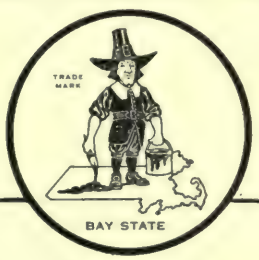
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was rivetted to the exterior studs at the second floor line. The attic joists were formed of 6-inch cannels and extend two feet over the outer line of the building. Six-inch metal rafters are supported upon a ridge resting on the ceiling joists. Upon the rafters were placed ferro-lithic plates, which were plastered underneath and concreted above and covered by asbestos waterproofing material. The necessary ground for concreting and plastering was afforded by expanded metal lath, applied and fastened by means of prongs punched on the structural members. The lath on the exterior was covered first with a coat of cement mortar, then with a scratch coat, then with a finished coat, left very rough. The inside of exterior lath was plastered with a heavy coat of cement plaster, thus wholly embedding the lath and producing a concrete slab two inches thick. The interior partitions were plastered with patent hard plaster on expanded metal lath."

Concrete for Sea-Walls.

The erosion of sea-coasts gives much apprehension to all maritime countries. The British Isles are particularly exposed to the robbery of Neptune. While the gales tear down the rocks on the windward, on the lee the wash brings away the corresponding shore. If you are strolling the English coast, you will meet in an otherwise uninhabited stretch a shed, with a smoking hearth for a mess cooking. Under other roofs will be heard the clanking of endless chains, and the reek seen from long boxes, such as wood is steamed in for bending. A grinding is constant and the sound of a squeegee as the mills mix cement and sand and gravel into what the employees call "pudding." This is the sludge for artificial stone. At the explanation, the stranger smiles and observes, "You are carrying coals to Newcastle, are you not? for these great cliffs provide rock galore"! The smile is returned with interest. You are answered that stone hewn has been tried and found wanting for the groynes. This is the old name for the lines of sea-wall run out at an angle to prevent the ocean beating continuously. But artificial stone, more homogeneous, and reinforced by cement which unites the seams under water by its hydraulic powers, meets the raging invader victoriously. At low tide, as you can walk out at the ends of these stone piers, you see that the waters do not crack, still less budge them. The materials are found on the spot.

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"Farm Cement News." (Published periodically by this company.)

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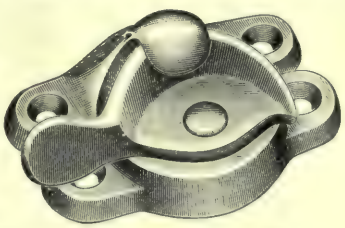
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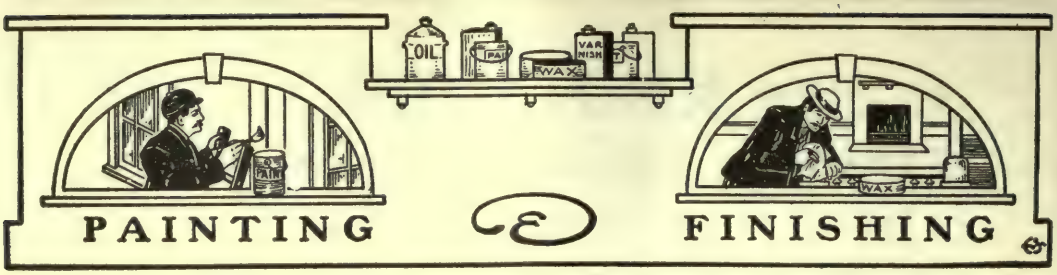
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Wall Paper Cleaner.

A SAMPLE of wall paper cleaner on the market showed by analysis that the following formula would approximate it: Sal ammoniac, 1 part; rye flour, 4 parts; water enough to form a dough. There was a little aniline coloring, but this would not have anything to do with the cleaning-off powers of the substance. There are other ways that call for baking the dough, but in the method given above baking is not necessary.

Painting the Outside of the House.

A correspondent wants to know how many coats the outside of a new frame house should have, and how heavy the coats should be. He also advances the theory that heavy paint should necessarily be a better protection than thin paint. The proper amount of base and oil must be used, but the main thing is to brush the paint out well. Then a southern exposure will require rather more oil than a northern exposure, and so we must study the matter in all its bearings, and this is where many painters fail. On new work a coat of priming and two coats of paint on that will usually do, and it is best to do this, even if another coat is desired, for the fourth coat had better be applied, say one year later.

Imitation Shellac Varnish.

Take four pounds of pulverized silica or China clay, the former being the better, and stir into it a quart of good japan liquid driers, and beat the mass into a perfect mixture. Then add, while stirring the mass briskly, 1½ gallon of the best hard oil finish or other equally good varnish; after which let the mass stand an hour so; then strain through a fine sieve. Thin with turpentine or benzine. Use it very thin for soft wood, and heavier for harder wood.

English Patent Driers.

An English journal gives the following formula for making patent driers: Take thirty pounds of zinc sulphate and dry it over a fire, mix with it four pounds of sugar of lead and seven pounds of litharge, with enough boiled oil to form a stiff paste; then add one hundred pounds of Paris white, fifty pounds of white lead, and enough boiled oil to grind to a stiff paste. The ingredients are to be ground in a mill, of course.

Making a Drying Oil.

It has been asked how a drying oil is made, and in reply I would say that if you will take one gallon of raw linseed oil, twelve ounces of litharge, one ounce of lead acetate, and one ounce of zinc sulphate, and place them over a fire, and allow them to simmer for some time, and well settled, after taking from the fire, and allowing to cool, drawing off the oil, you will have what is called "drying oil."

To Make Linoleate of Lead Driers.

Make a lye by dissolving one and one-half pounds of caustic soda in seven pints of water, and boil ten pounds of raw linseed oil in the lye until a clear, homogeneous paste is formed. If a little more water is required during the boiling add it so that the paste will not be too thick. Separately dissolve nine pounds of lead acetate in four gallons of water, and boil up this solution. Then gradually pour in the soap solution and stir the whole time. The linoleate of lead will separate out in masses or flakes, and should be collected, washed with warm water and dried. For use, the linoleate thus made is first mixed with a little turpentine, and then added to linseed oil heated to 300 degrees Fahr.

Some Ear Marks of a Good Drier.

A good liquid drier should be of a clear amber color when spread upon glass, and



Talk to Your Painter

When giving out a painting job be sure to have a talk with your painter. Do not be content to find out merely how much it is going to cost you and how long it is going to take. Ask him what materials he intends to use. This is a very important point. The success of the painting job depends upon it.

If he tells you he uses pure white lead and pure linseed oil mixed by him after the surface to be painted has been carefully studied you may be reasonably sure the job will be successful as regards its beauty and durability. Be sure he uses white lead that is guaranteed pure by the Dutch Boy Painter trade-mark. It is on the side of every steel keg containing this ideal paint pigment.

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it should dry hard and free from tack in eight hours, and when allowed to remain on the glass for seventy-two hours, and then rubbed briskly with the finger, should remain firm.

Litharge as a Drier.

I have mentioned litharge as the popular drier of my boyhood days. Some still think it the best ever. It seems to make the oil paint dry with more luster, and it is elastic, too. It is usual to take from eight to twelve ounces of litharge to the one hundred pounds of oil.

Litharge, red lead, umber, sugar of lead (lead acetate), dried copperas, and dried zinc sulphate, are all driers. Here is a formula from a very old recipe book: Take two gallons of linseed oil, and add litharge, red lead and umber, of each four ounces, and two ounces each of sugar of lead and sulphate of zinc. There you have the whole batch of drying agents. This will make a rather dark japan drier, but it will be much safer to use than very many that are on the market. It will not curdle raw oil, nor liver up paint as some market driers do.

Water Color Work.—The use of prepared kalsomines for walls and ceilings of houses is ever increasing, owing to several facts. First, they are very satisfactory as decorative materials, giving a soft and pleasing surface for the eyes to rest upon. They are inexpensive, and will do on walls that would not do for either paper or paint. The maker of these finishes has made them popular by bringing the attention of householders to their use, through extensive advertising, showing many beautiful color schemes to which they easily lend themselves. Stenciling plays a large part in the using of wall finishes. Every painter should have and know how to use stencil patterns, which may be bought ready made, or he can prepare them himself if he cares to.

Coloring an Electric Globe.

Take a little while shellac varnish and thin it down with alcohol; dip the bulb in this to produce a frosted effect. Use the shellac very thin, in order that it may run smooth. Color if desired with aniline dye, dissolve in a little alcohol and add to the shellac.

Some Minor Notes.

Straining the paint will make it go farther and wear better.

Sandpaper will cut faster if kept wet with benzine or turps.

For a smoky wall or ceiling give a coat of limewater before painting.

If the paint begins to blister, remove it at once, for it will continue to blister and get worse, not better.

Remove old putty from sash with a torch; a painter reports that he took out over 100 panes this way, without breaking one.

To paint over an old kalsomined wall size with a mixture of equal parts of raw oil, turpentine and japan, or with cheap varnish thinned with benzine.

Red lead, a natural drier, should be applied quite thin, and be well brushed out.

Do not make the mistake of adding too much oil to zinc white for exterior work. Use a very pale oil for white work, and be sure to brush it out well.

One gallon of mixed paint will cover from 25 to 30 square yards of stone work; 50 to 70 square yards on woodwork; 80 to 90 square yards on iron work; and 40 to 50 square yards on plaster. One pound of mixed paint will cover wood four yards for the first coat, six yards on the second coat and seven yards on the third or fourth coat.

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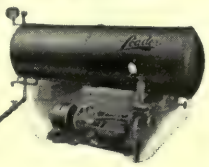
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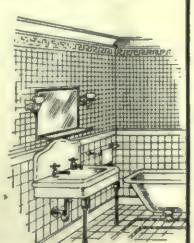
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THIS system is being used in many of the best appointed modern homes, apartment buildings, hotels and even office buildings and factories.

This system claims the advantage of very much greater economy than the other systems owing to the fact that all atmospheric pressure is removed from the piping and radiators forming an almost perfect vacuum and allowing steam to form at a lower temperature and to circulate quickly and uniformly. With atmospheric pressure as well as all water of condensation removed, every fraction of a square inch of radiation becomes filled with pure vapor and gives its quota of heat—there are no water traps or air-filled pipes to minimize the vapor capacity, lessen heat and increase the tax on the boilers.

The vacuum-vapor system is also well controlled. Each radiator is throttled so that by the turn of a supply valve the amount of vapor admitted and the degree of heat given can be exactly regulated. This feature not only tends to increase the economy of the system, as it permits uniform distribution of heat and modification in mild weather, but it greatly contributes to comfort. With many systems it is necessary to turn the radiators completely on or off—to roast or freeze with no medium between the extremes.

Another great advantage claimed is that when fire is stirred up in the morning after a low fire all night, vapor rises and circulates to every part of radiation almost instantly, warming the house in a few minutes. With a practical vacuum in the radiation the vapor forms at the minimum temperature and there is no atmospheric pressure to retard the circulation.

Ordinary steam systems take an hour or more to heat after fire is stirred up, because the steam cannot form at so low a temperature under atmospheric pressure, circulates more slowly and can enter radiators only so fast as they condense steam.

With a perfectly installed system of this kind radiators do not sputter, rattle and leak as steam and hot water radiators do to the great annoyance of those in the house and to the detriment of rugs, floors and walls. This feature makes the system especially adaptable to hospitals, schools, churches, studies and everywhere silence and sanitation are needed.

Two pipes are used, a separate supply and return pipe to each radiator, which gives far greater control than the one pipe vacuum system by which both the vapor is delivered to the radiator and the water of condensation removed from it with a separate small pipe run from the air valve on each radiator. By the one pipe system radiator control is limited to the amount of vacuum carried in the small pipe from the air valves on radiators.

If the piping leaks the one pipe vacuum system becomes useless unless a pump is used to secure a vacuum at excessive cost of energy. Leaks in piping do not put the two pipes system out of commission.

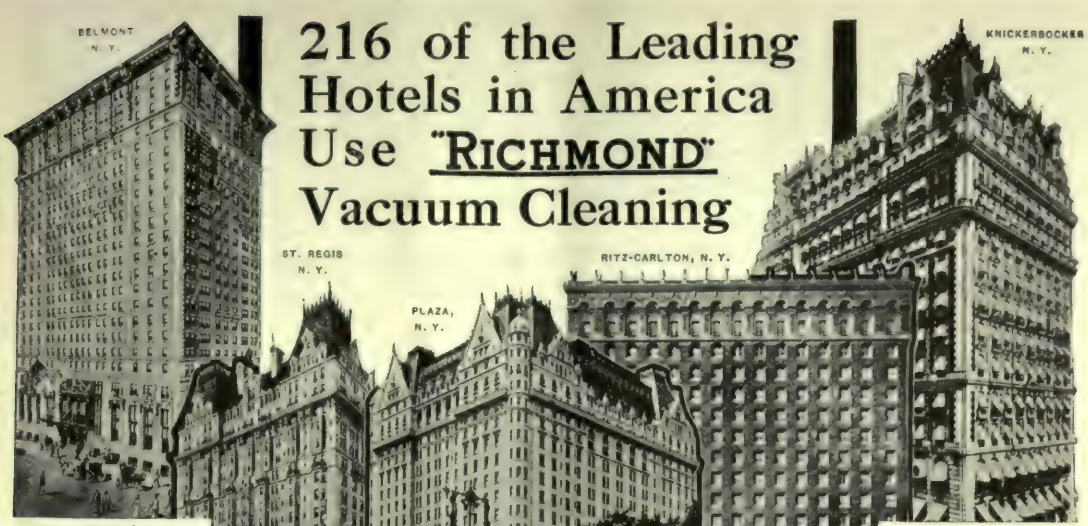
The system is neither a vacuum or a vapor system but a combination of the good features of both as its name indicates.

The equipment consists mainly of a vacuum valve and air trap, supply and return valves and an ejector. Any good radiators or boilers may be used with it, and old hot water or steam systems may be converted into the vacuum-vapor system at comparatively little cost. The expense of the installation will be more than met by the saving in fuel.

No automatic air valves are used on radiators which greatly reduces cost of installation.

Tapestry Brick and the Open Fireplace.

Let the heating system of the home of a cultivated man be ever so elaborate, the old-fashioned open fireplace is reasonably certain to be one of its features. There is an



216 of the Leading Hotels in America Use "RICHMOND" Vacuum Cleaning

These Hotels Use "RICHMOND" Vacuum Cleaning:

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Belvedere, Baltimore
Caswell, Baltimore
Brewster, Boston
Commonwealth, Boston
Copley Square, Boston
Essex, Boston
Puritan, Boston
Thorndyke, Boston
Stratfield, Bridgeport
Iroquois, Buffalo
Lenox, Buffalo
Lafayette, Buffalo
LaSalle, Chicago
Auditorium Annex, Chicago
Stratford, Chicago
Great Northern, Chicago
Virginia, Chicago
Chicago Beach, Chicago
Hyde Park, Chicago
Kaiserhof, Chicago
Lexington, Chicago
Metropole, Chicago
Brevoort, Chicago
New Southern, Chicago
Warner, Chicago
Sinton, Cincinnati
Gibson, Cincinnati
St. Nicholas, Cincinnati
Havlin, Cincinnati
Hollenden, Cleveland
Gillsey House, Cleveland
Colonial, Cleveland
Euclid, Cleveland
Pontchartrain, Detroit
Cadillac, Detroit
Algonquin, Dayton

THE beauty of vacuum cleaning is that wherever installed, it *always pays for itself.*

It pays for itself, first, because it does away with the annual tear-up called *house-cleaning* (and house-cleaning costs more than you think unless you have figured it out).

It pays for itself, second, because it doubles and trebles the life of carpets, hangings, furniture, wall-paper, decorations; and keeps everything always *bright* and *new.*

In hotels, where house-cleaning is a *business*, brooms and dusters have long been discarded as *too expensive.*

In hotels, where *every operation* is figured down to the last penny of cost, "RICHMOND" Vacuum Cleaning has been almost universally adopted *because it pays.*

In residences, apartments, hotels, schools, office buildings, libraries, churches, theatres, factories, stores, garages, and public buildings, "RICHMOND" Vacuum Cleaning will easily earn its own way, to say nothing of the cleanliness and convenience it brings.

It can readily be installed **in old buildings as well as in new.**

The initial expense is small; the annual saving is great. Write

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Peabody, Memphis
Plankinton, Milwaukee
Schlitz, Milwaukee
St. Charles, Milwaukee
Cawthon, Mobile
Bienville, Mobile
Paxton, Omaha
Bellevue-Stratford, Philadelphia
Schenley, Pittsburg
Colonial, Pittsburg
Duquesne, Pittsburg
Fort Pitt, Pittsburg
Henry, Pittsburg
Powers, Rochester
Seneca, Rochester
Planters, St. Louis
Southern, St. Louis
Jefferson, St. Louis
St. Paul, St. Paul
Ryan, St. Paul
Jefferson, Richmond
Oliver, South Bend
Shoreham, Washington
St. Charles, New Orleans
Grunewald, New Orleans
Bellevue, San Francisco
St. Francis, San Francisco
Fairmont, San Francisco
Normandie, San Francisco
Victoria, San Francisco
Richlieu, San Francisco

Both Stationary and Portable Cleaners

The McCrum-Howell Co. is the largest concern in the vacuum cleaning line—a $7,000,000 corporation with five manufacturing plants. Its devices range from portable electric cleaners to mammoth installations supplying vacuum to twenty operators or more at one time. Its engineering department is at all times at the service of architects, engineers and others who are confronted with new or difficult or unusual vacuum cleaning problems.

The McCrum-Howell Co. is licensed to make stationary vacuum plants under **the basic Kenney patent,** and it owns or controls 84 other vital vacuum cleaning patents. For full information regarding either stationary vacuum cleaning plants or **ten pound portable suction cleaners,** send the coupon.

SEND information about the advantages and economy of "Built-in-the-House" Vacuum Cleaning for the buildings checked below.

☐ Residence	☐ Office Building	☐ Theatre
☐ Apartment	☐ Library	☐ Public Building
☐ Hotel	☐ Garage (440)	☐ Factory
☐ School	☐ Church	☐ Store

If you are interested in a ten pound electrical Portable Cleaner, check here . . . . . ☐

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*Address*_____

Mail to The McCrum-Howell Co.
Park Ave. and 41st St., N. Y. City. Rush and Michigan Sts., Chicago.

indefinable something about the fireplace, with its crackling logs and general air of cheer and coziness, that no amount of patent heating capacity is able to replace. Some weeks since we had a few timely things to say in this department upon the rare beauty and utility of tapestry brick in the hands of an architect endowed with the color sense and that intuitive grasp of "motif" that enables the true artist to blend his dream into the fabric of its locale. In nothing does this beautiful medium rise to such heights of loveliness as in the rearing of the old-fashioned open fireplace.

As a place to dream, to con over old memories, to enjoy one's favorite pipe, or to indulge a quiet nap, no nook in a house equals the fireplace. It is at once decorative and useful. And in tapestry brick, relieved here and there by a bit of good tile, it is a work of art to be admired, to be revelled in and to be treasured.

E. S. T. It really is too bad that you cannot use your fireplace because of smoking. Evidently the two fireplaces run into the one flue, which is always an undesirable construction, and especially when the smoke flue is so small. If you do not want the expense of building a second flue you will need to close up the throat of one fireplace, in which case the other grate will burn without smoking.

G. W. Your letter is almost identical with a host of others asking about lining the flue with terra cotta. Yes, most architects do specify these flue linings, both because they insure good draft to the fire, and because the lining gives protection against sparks passing through open brick joints into surrounding woodwork. Your local building material man will doubtless get these linings for you. See that each piece is fairly perfect when it is set by the mason, as broken pieces have the same faults as an unlined brick chimney.

C. S. B. There is no value in having your fireplace so deep; on the contrary, the fire blazing at the back can be seen only by those nearly in front of the opening, and most of the heat is lost up the chimney. A safe rule is to make the height always less than the width, and the depth about two-thirds the height. For example, four feet wide, three feet high, two feet deep, will give good results. The smoke flue in cross section should be about one-twelfth the area of the fireplace opening, so that for the fireplace mentioned the flue will be twelve by twelve inches.

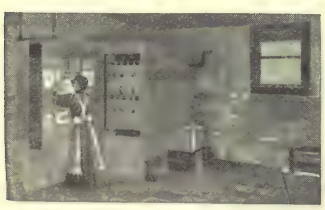
Hot Water in Summer.

A pamphlet is at hand which illustrates the method of the Humphrey Co., of Kalamazoo, Mich. The heater is among those of the higher class and the test will prove of interest to those of our readers confronted by this problem.

Adjustable Closet Connections.

These connections provide for settlement of the house without injury to the closet connection which has been most susceptible to damage because of its rigidity. The booklet of the Cosgrove-Cosgrove Mfg. Co., of Philadelphia, illustrates the method to advantage.

NO DELAY TO GET THE CLOTHES DRY ON WASH DAY



When using the ***"CHICAGO-FRANCIS" Combined Clothes Dryer and Laundry Stove.*** Clothes are dried without extra expense, as the waste heat from the laundry stove dries the clothes. Can furnish stove suitable for burning wood, coal or gas. Dries the clothes as perfectly as sunshine Especially adapted for use in Residences, Apartment Buildings and Institutions. All Dryers are built to order in various sizes and can be made to fit almost any laundry room. Write today for descriptive circular and our handsomely illustrated No. K 12 catalog. Address nearest office.

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THE pleasure of living in the country or small town is greatly enhanced by a few city conveniences, the most necessary and comfort giving of which is a **Satisfactory Gas Supply.**

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Gas to heat water for the bath and other uses.
Gas to operate a gas engine for pumping and other purposes.

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GET THIS FREE BOOK BEFORE YOU INSTALL A HEATING SYSTEM

Heating plays so important a part in home comfort you can't afford to make a mistake by installing an unsatisfactory system. The hot air system ruins the furniture, is unhealthy, and the large pipings require all of basement space. Hot water is unreliable, slow, and expensive to install. Steam pressure systems have leaky air vents to ruin carpets, plastering, floors, etc.

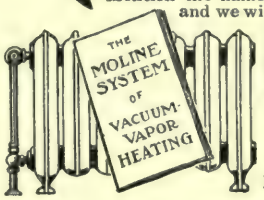
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Best heating system on earth. Cleanest—quickest heating—easiest to regulate—uses 25% less fuel. Perfectly adapted for large or small homes, stores, schools, factories or any building.

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Mention the name of your heating contractor and we will have our engineers draw up complete plans and specifications FREE. Don't order a heating system until you get all the facts about the Moline System. We can save you money and trouble.



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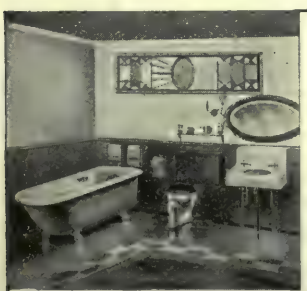
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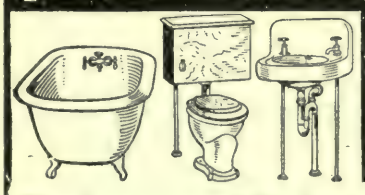
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MODERN BATHROOM FOR EVERY HOME

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Gasoline engines for farm and shop. Electric Lighting Plants for your home, - **$300**

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All high grade, strictly guaranteed goods. Get our prices and we will save you money.

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M. J. GIBBONS DEPT. C DAYTON, O.

SPLINTERS AND SHAVINGS

IN some new houses which have recently been built at Knutsford in Cheshire, England, a very pretty idea has been carried out to encourage the bird loving propensities of the occupants. The idea is to leave nesting places for our feathered friends.

A local writer says: "Instead of filling up the holes left by the scaffolding the architect had closed them with a thin covering of stucco pierced with a round hole. The birds enter and build inside. Sometimes you may see a tiny step just below for the bird to alight on and a little cornice over the gap to keep out the rain." Other holes have also been purposely left in the brickwork for nests, and it is said that the birds understand it all perfectly.

National Forests as National Playgrounds.

Washington, D. C.—Before the year's outing season is over nearly half a million persons will have sought recreation and health in the National Forests of the United States. According to the record of the U. S. Department of Agriculture, the total last year was, in close figures, 406,775. With the finest mountain scenery and much of the best fishing and big-game hunting in the United States, the National Forests, made more and more accessible each year through protection and development by the Government, are fast becoming great National playgrounds for the people.

The use of the forests for recreation is as yet in its beginning, but is growing steadily and rapidly—in some of the forests at the rate of a hundred per cent per annum. The day seems not far distant when a million persons will annually visit them.

The records show that the seasonal use of the forests runs from two months in a Colorado forest, such as the Routt, to twelve months in an Alaskan, such as the Tongass. But the uses differ. In Colorado the 2,000 visitors entered the forest to fish, to camp, to climb, and to drink the medicinal waters; in Alaska the 1,000 almost solely to hunt and fish. The 21,000 persons who went into the Coconino forest, Arizona, during nine months, went to camp or to enjoy the scenery. During four months 50,000 persons visited the Angeles, California. The most popular of the forests is the Pike, containing the famous peak of that name. The various attractions within its limits, including the scenic railway, drew 100,000 tourists and others.

Of the natural wonders and landmarks of interest in the National Forests several have been set apart as National Monuments, among them Cinder Cone, a great lava basin in California; the Gila Cliff Dwellings, extensive remains of a pre-historic race in New Mexico; the unsurpassed Grand Canyon of the Colorado, in Arizona; Jewel Cave, South Dakota; Lassen Peak, the terminus of a long line of extinct volcanoes in the Cascades; the Pinnacles, a collection of remarkable jagged peaks in California; and the Tonto, a group of prehistoric ruins in the Tonto Forest in Arizona. The Big Trees, Glacier Park, the Petrified Forest, the Oregon Caves; and numerous other phenomena serve to attract other hosts of visitors.

The sportsman finds his paradise in the National Forests. In many of them big game abounds. The rangers and the guards, besides the service they perform against the spread of fire, often point out the best site for the camper and the easiest route.

Oak Flooring.

Adaptability of Various Grades.

The following is a general outline of the uses that are generally made of the various grades of oak flooring:

Clear quartersawed or first grade, for high-class residences, hotels, apartment houses and club houses.

Sappy clear quartered or second grade.

Why You Should Use

VULCANITE ROOFING.

If you Specify "Vulcanite" in your order, you will save yourself a great deal of trouble, as it's a Time-tested Roofing and has always given Perfect Satisfaction.

Neither Labor nor Expense have been spared in its manufacture, as only such Materials are used as will warrant it giving the Best of Service for Years. Weather Conditions never damage it—It's Fireproof.

Get a sample and put it to the different tests.

McCLELLAN PAPER COMPANY

"The Home of Quality"

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"BEST HOUSE PLANS," a beautiful book of 200 modern homes costing $500. to $6000. I have had many years experience in planning houses, cottages and buildings, well arranged, well constructed and economical to build. If you want the BEST RESULTS, consult a man of experience and reputation for GOOD WORK. This book gives plans, exteriors and descriptions. Price $1.00. "BUNGALOWS and COTTAGES," a new book showing 50 up-to-date designs, all built from my plans, pretty one-story bungalows and cottages. If you want a small ECONOMICAL HOME, don't fail to send for one of these books. Price 50c. For $1.25 I will send you BOTH BOOKS. To prospective church builders I send my portfolio of churches for 25c.

CHAS. S. SEDGWICK, 1028 K, Lumber Exchange, Minneapolis



THE HOUSE BEAUTIFUL

COMPLIMENTARY PORTFOLIO OF COLOR PLATES

Notable Examples Of

INEXPENSIVE DECORATION AND FURNISHING

"THE HOUSE BEAUTIFUL" is an illustrated monthly magazine, which gives you the ideas of experts on every feature of making the home, its appointments and surroundings beautiful.

It is invaluable for either mansion or cottage. It shows how taste will go farther than money. Its teachings have saved costly furnishings from being vulgar—on the other hand, thousands of inexpensive houses are exquisite examples of refined taste, as a result of its advice. It presents this information interestingly and in a plain, practical way. Everything is illustrated: frequently in sepia and colors.

"The House Beautiful" is a magazine which no woman interested in the beauty of her home can afford to be without. It is full of suggestions for house building, house decorating and furnishing, and is equally valuable for people of large or small income.

ELLEN M. HENROTIN,
Ex. Pres. Nat. Federation of Women's Clubs.



A "House Beautiful" illustration

Our readers say the magazine is worth more than its subscription price, $3.00. But to have you test its value, for $1.00 we will mail you *free*, "The House Beautiful" Portfolio of Interior Decoration and Furnishing with a five months' trial subscription. The Portfolio is a collection of color plates, picturing and describing rooms in which good taste rather than lavish outlay has produced charming effects. The Portfolio alone is a prize, money can not ordinarily purchase. Enclose $1.00 with coupon filled out and send to

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You may send me your Portfolio of Notable Examples of Inexpensive Home Decoration and Furnishing *free*. I enclose herewith $1.00 for a special rate five-month trial subscription to The House Beautiful.

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an economical substitute where a dark finish is desired. This grade is as durable a floor as the clear grade.

Clear plain sawed or first grade, for high class residences, hotels, apartment houses, churches and club houses.

Select plain sawed or second grade, for medium priced residences, hotels and apartments, schools, office buildings and stores.

No. 1 common or third grade, for dwellings, tenements, stores, high-class factories and manufacturers' buildings.

Factory or fourth grade, for warehouses, factories and cheap tenements.

Local Prices, Waterville, Wash.

Excavating, 30 to 4 cents cubic yard.
Cement, $3.00 to $3.50 barrel.
Brick, $6.50 to $12.00.
Lathing and plastering, 27 cents yard.
Lime, $2.00 barrel.
Dimension lumber, about $15.00 M.
No. 1 fir finish, $30.00 to $32.00.
No. 1 flooring, $33.00.
Cedar clapboards, $26.00.
XAX shingles, $2.25.
Carpenters' wages, $5.00, 9 hours.
Masons' wages, $7.00 to $8.00.
Common labor, $2.50 to $3.00.

Superintendent.

Lighthouse Service.

June 7-8, 1911.

The United States Civil Service Commission announces an examination on June 7-8, 1911, to secure eligibles to fill vacancies in the positions of assistant superintendent and superintendent in the Lighthouse Service, at salaries ranging from $1,600 to $2,400 per annum.

Applicants must have had at least six years' satisfactory experience in civil engineering and construction. Graduation from a reputable technical school of engineering will be considered as equivalent to three years of the six.

Age limit, 21 years or over.

Applicants should at once apply either to the United States Civil Service Commission, Washington, D. C., or to the secretary of the board of examiners at the postoffice of the largest towns, for application and examination Form 1312. In applying for this examination the exact title as given at the head of this announcement should be used in the application.

As examination papers are shipped direct from the Commission to the places of examination, it is necessary that applications be received in ample time to arrange for the examination desired at the place indicated by the applicant. The Commission will therefore arrange to examine any applicant whose application is received in time to permit the shipment of the necessary papers.

Helpful Hints.

From the catalogue of William Moellering's Sons, Fort Wayne, Ind., dealers in building supplies, we take the following extracts that will prove helpful to many:

Crushing strength of one cubic inch of concrete is 2,246 pounds; granite, 187 pounds; marble, 124 pounds; limestone, 108 pounds; sandstone, 94 pounds; brick, 116 pounds.

Tensile strength of one square inch of concrete is 385 pounds; granite, 186 pounds; marble, 198 pounds; limestone, 165 pounds; sandstone, 94 pounds; brick 137 pounds.

The weight of one cubic foot of concrete is 154 pounds; granite, 184 pounds; marble, 170 pounds; limestone, 148 pounds; sandstone, 140 pounds; brick wall, 130 pounds.

Fire test of concrete is 2,100 degrees Fahr.; granite, 670 degrees; marble, 900 degrees; limestone, 560 degrees; sandstone, 1,400 degrees; brick, 1,700 degrees; terra cotta, 1,600 to 2,400 degrees.

A gallon of water (U. S. standard) weighs 8 1-3 pounds and contains 231 cubic inches.

One cubic yard of solid gravel or earth contains 18 heaped bushels before digging and 27 when dug.

Horse-power (steam engine) is calculated as the power which would raise 33,000 pounds a foot high in one minute, or 90 pounds at the rate of four miles an hour.

Asphalt Mastic Floors.

These floors are water-proof, acid-proof and sanitary, laid from 1 inch to 1½ inches in thickness as described in the booklet. Large surfaces may be treated and a guarantee is given for durability in the specifications.

The American Asphaltum & Rubber Co., Harvester Building, Chicago.

WOULD YOU LIKE

A Bright, Original, Attractive **Home**

With Your Own Individual Ideas as the Key Note of the Design



No. 1279 as just completed in Indiana.

OUR $5.00 SKETCH OFFER

On receipt of $5.00 and a rough diagram or description of your own ideas we will make a special study of your requirements and prepare the first and second floor plans accurately laid out to a scale with a picture of the exterior of the house as it would appear when completed, advising you of the additional charge for Complete Working Drawings, Specifications, Etc., which will be as low as is consistent with the labor involved. This offer applies to residences only costing not over $5,000 and is made simply to demonstrate to you the value of competent services in interpreting and rendering practical your *original ideas* so that the home will be a complete success in every detail.

"There is no art to find the mind's construction in the face." —*Macbeth.*

—BUT—

"The dwelling a man builds, reveals his personality, and through its halls and portiços runs the story of his life."

Now if the problem be given proper consideration, it means *time* and *time* is money. We would be speedily overwhelmed with requests if this were a *free* offer, consequently it is not free. No signed contract is asked for. We propose to make our work so pleasing and satisfactory as to demonstrate beyond a question that the *best* is certainly the *cheapest* for you. The fact that *houses* built from our designs *sell* advantageously when built proves they are *practical* and *desirable*. *This is an important matter should you wish to dispose of your property.*

REMEMBER:—It is not what *you pay for plans* that is the *real consideration*, but it is *what you get*. Why? Because upon your *plans* and especially the *details* of *construction* depends utterly the *proper* or *improper* expenditure of *all your building funds*. Quite important, is it not?

THE KEITH CO., Architects

1721 Hennepin Ave. **Minneapolis, Minn.**

New Roofing Discovery

Works Wonders in Beautifying Home!



For Simplest and Grandest Homes

CHARMING Moorish beauty and dignity of appearance of Metal Spanish Tile gives an air of distinction to the home graced by this wonderful new and practically indestructible roofing.

It has taken home builders of America by storm, for it is the modernization of the wonderfully beautiful roofs of historic Spanish edifices.

The art of making this roofing, left behind by fleeing Moors driven out of Spain centuries ago, until 1910 could not be made practical for the modern home, despite its alluring beauties.

After years of experiment, we have hit the solution That is why today we are able to offer American homes the amazing attractiveness of

Metal Spanish Tile Roofing

Its scores of vital, practical advantages cost no more than common roofing, yet mean tremendous economy—it needs no repairs and outlasts several ordinary roofs because of its practically indestructible metal construction.

It is absolutely wind, weather, storm, fire and lightning proof.

Easy to apply. No soldering, no special tools—any ordinary mechanic can apply it. Interlocking system by which tiles dovetail into each other makes the roof absolutely water tight and provides for expansion and contraction perfectly—summer and winter. It is guaranteed non-breakable.

HOMEBUILDERS—Simply send us today the dimensions of your building and we will tell you by return mail exact cost of all material. Our new 1910 book on beautifying the modern American home by use of **Metal Spanish Tile** is yours for the asking. A postal will bring it. Address

The Edwards Manufacturing Co.

The Largest Makers of Steel Roofing and Metal Shingles in the World

520-540 Culvert St. **Cincinnati, Ohio**

Modern Mantels.

An especially handsome catalogue is that of the Knoxville Furniture Co., Knoxville, Tenn. Illustrated in color it gives an excellent idea of the finished product and will be of interest to those about to make a selection.

Metal Ceilings.

We are in receipt of the handsomely illustrated catalogue of metal ceilings, published by the Edwards Manufacturing Co., Cincinnati, Ohio.

It contains 184 pages showing ceilings of highly ornamental character and some interior views of rooms where metal ceilings were used. The company also makes ornamental metal tile and roofing products.

Art and Utility in Decoration.

By John Taylor and John Ednie.

The different rooms of the house are taken up separately and studied as to color effects in Fab-rik-o-no. Several stencils of interest are shown and various color schemes are suggested in each case.

H. B. Wiggin's Sons Co., Bloomfield, New Jersey.

From the Raw to the Finished Product.

A descriptive pamphlet of the manufacture of "Chicago AA," the product of the Chicago Portland Cement Co., nicely illustrated. This will be of interest to those of our readers who desire to learn more of Portland cement.

Sheathing and Deafening Quilt.

Three very interesting samples of quilt are at hand, consisting of eel-grass between two layers of "Kraft" paper for the single and double ply. The latter is also made with a covering of asbestos paper. The quilt is used for lining houses, stables, etc., making them warm in winter and cool in summer. For deadening sound in floors and partitions in schools, apartments, hospitals, etc. For insulating cold storage and ice houses, refrigerators, etc. An explanatory booklet accompanies the samples in a neat case. Samuel Cabot (Inc.) Manufacturing Chemists, 141 Milk St., Boston, Mass.

The Five Orders of Architecture.

By Jas. T. Ball, Architect.

These are detailed working drawings and the edition consists of 17 plates and descriptive letterpress, one being a plate of scales, the first plate being a comparison of the Five Orders arranged in succession, giving a very vivid and striking example of the evolution of the orders, from the Tuscan to the Composite periods. Following this are three plates for each order, brought out in a large portfolio, 14x21. Price, postpaid, $4.00. Plates, cloth backed, $6.50.

William T. Comstock, Publisher, 23 Warren Street, New York.

Richmond Concealed Transom Lift.

A transom lift which operates the transom with concealed mechanism except for a simple knob is the subject of this attractive booklet in colors. The transom as used in various rooms is shown and its operation.

The McCrum-Howell Co., New York City, Chicago.

Concrete Worker's Reference Books.

Prepared by A. A. Houghton.

A series of practical monographs on popular concrete subjects, have just been issued. It has been the purpose of the author to fully explain and illustrate molds and systems that are not patented, which are equal in value and often superior to those restricted by patents.

The titles are as follows:

No. 3, Practical silo construction.

No. 4, Moulding concrete chimneys, slate and roof tiles.

No. 5, Moulding and curing ornamental concrete.

No. 6, Concrete monuments, mausoleums and burial vaults.

The Norman W. Henley Pub. Co., New York. Price 50c each.

Bird Neponset Products.

This is the title of a booklet explaining the different grades, their use and application, of roofing and insulating products. The information will be of value and it is well illustrated.

F. W. Bird & Sons, East Walpole, Mass.

Landscape Development.

This is the title of a booklet explaining the of trees, shrubs, bedding plants and flowers and contains valuable suggestions as to the laying out and proper arrangement of grounds and planting. Outline plans of grounds are shown and the suggestions offered will be of value to this season's homebuilder in getting the grounds in shape.

Holm & Olson, Inc., St. Paul, Minn.

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GLIMPSES OF BOOKS

The Prodigal Judge.

By Vaughan Kester.

THIS title is rather unusual but it would be difficult to find another word which would adequately fit the irresponsible old judge. A man of brilliant mind but whose thirst for liquor had been his downfall. In spite of this he is a quaint lovable figure, sometimes absurd and often ridiculous, yet possessed of a reserve force and strength which makes him a power in an emergency.

The story deals with that period of American history sometime before the Civil war before the slavery question had come to a head. The country was young and conditions similar to the frontier days of our own time. The quaint characters and viewpoints, the lawless organizations and delightful manners of the "quality" makes a book of thrilling interest.

The boy who is protected by the judge, the beautiful southern girl and her well born lover, the determined selfmade man she really loves are all personalities who appeal to the reader each in their proper part. The final triumph of good over evil, the restoration of the judge to his place in the world and the general happiness, brings the book with its quaint humor to a delightful close.

The Bobbs Merrill Co., Publishers, Indiandiapolis, Ind. Price $1.25.

The Uncrowned King.

By Harold Bell Wright.

A beautiful allegorical story of a pilgrim to whom certain phases of life are unfolded by voices coming from the waves, the evening wind, the night and of the new day, all as he meditates after his pilgrimage in the quiet room. Each tells him a portion of the tale which deals with the restless spirit of youth, beauty, covetousness, power, simplicity, humility and strength.

A book that will require more than a casual glance to comprehend all its real beauty, yet one which unfolds with delightful simplicity.

The Book Supply Co., Publishers, Chicago. Price 75 cents.

Artistic Brick and the Textile Principal in Brickwork.

This is the title of a pleasing little booklet in two colors by Frederic W. Donahoe. It is nicely illustrated, showing brick used for various purposes.

The text discusses brickwork in an entertaining and instructive manner. A copy may be obtained of the Thomas Moulding Company, 1200 Chamber of Commerce, Chicago.

The Landscape Beautiful.

By Frank A. Waugh.

This is a beautifully illustrated book described as "a study of the utility of the natural landscape, its relation to human life and happiness, with the application of these principles in landscape gardening, and in art in general."

Trees and other elements of landscape are considered, the sky and the weather. Landscape gardening and a phase of it which mends nature, is of interest.

American landscape gardening, gardeners and gardens are taken up in an instructive and pleasing manner.

The improvement of the open country is a chapter for deliberate thought, together with its decorative use.

Appropriate poems by standard poets appear at intervals, forming a "landscape" for the book itself, to the mental vision.

Price, $2. Orange Judd Company, New York, Publishers.

Gypsum as a Fire-proof Material.

By H. G. Perring, Assoc. M. Am. Soc. C. E.

This instructive booklet tells of gypsum in its historical, technical and useful aspects. Block, board, studs and plaster are mentioned as constructive details and the home builder will find much of interest to aid him in his undertaking.

The booklet is sent with the compliments of the United States Gypsum Co., New York, Cleveland, Chicago, Minneapolis, Kansas City, San Francisco.

KEITH'S MAGAZINE

ON HOME BUILDING

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IDEAL HOMES MAGAZINE

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(Plate A) LARGE LIVING ROOM WITH SAND FINISHED PLASTERED WALLS AND CEILINGS. FURNITURE AND TRIM ARE OF OAK FINISHED ALIKE
—Frank Lloyd Wright, Architect.

KEITH'S MAGAZINE

VOL. XXVI JULY, 1911 No. 1



(Plate B) ATTRACTIVE LIVING ROOM IN A SEATTLE HOUSE IN WHICH FURNITURE MATCHES TRIM
—Wilson & Loveless, Architects

The Living Room; How to Furnish It

By CHARLES E. WHITE, JR., A. A. I. A.

CAN one have furniture of good design and sound construction at moderate prices?

This question may be answered positively in the affirmative. So much good furniture is in the stock of dealers and manufacturers it is the easiest thing in the world to furnish a living room with the best, and plain furniture may be built to order for reasonable prices though at a much higher cost than ready-made.

For the family at large the living room is a night room, and a day room for women and children. Every piece of furniture should be selected with mind intelligently aware of this.

Providing first for the women of the family, there should be a cozy corner where one may settle down for little tasks after the morning work is done. Sewing, darning, embroidery and all hand-work may be done in the living room, as well as the clerical work of the house, so you will see it must be for work as well as play; it should be just the sort of cheerful, cozy, sunny, restful room you will be glad to go to whenever the occasion arises.

Let the furniture be bought with these

ideas in view. Choose refined, sturdy, comfortable pieces, instead of ornate, flimsy, vulgar ones.

The Living Room Table.

Start with the living room table and plan around that the various other pieces. Have each piece clear in your mind before you buy; its function and location in the room.

A table 30″x42″ is large enough for a small family. Plate A shows a larger table (42″x60″), placed where it will be a little island for readers and workers.

Such a table with lamp in the center will accommodate three or four readers. Underneath have a shelf for magazines and books. Plate B shows another table of attractive design built of Flemish oak. The turned legs and carved pattern on the sides are very well done.

In some rooms the living room table is well placed with one end against a wall. Determine the location by the purely utilitarian fact of greatest convenience. Across a corner is the least desirable place. Furniture, rectangular in shape, like tables, pianos, settles or benches, always look best when placed with one side parallel to the wall of the room. Rugs are better the same way, (Plate A), not scattered hit or miss over the floor. Chairs may be placed promiscuously but other pieces should be arranged in an orderly manner. Books neatly stacked upon the table with bindings all the same way and parallel with table edge look strikingly attractive. Never pile them up criss-cross with edges facing different directions.



(Plate C) OAK LIVING ROOM TABLE BUILT ON DUTCH LINES

If you will experiment with your living room and arrange it once in the manner suggested you will never change back to the old helter-skelter method.

Place a round table anywhere in the living room. Plate C shows a Dutch model. Round tables are not quite so convenient for reading, however, as rectangular ones.

The Book Case.

The sectional book case was probably suggested to its inventor by a child's building blocks. No more useful idea has been contributed to modern housekeeping.

Almost every family starts with comparatively few books, desiring to complete the library from time to time as funds and inclinations permit, hence the sectional book case which grows with the library.

To those who prefer a built-in case, that of which a glimpse is had in Plate A may be recommended. Glass or wood-paneled doors keep out dust and help to preserve the books.

Any refined, simple design is best for the living room and a case with capacity for about one hundred volumes is a good size to start with. It is advisable to allot space for tall books at the bottom with small books at the top.

The Settle.

Have a settle or davenport as it is a useful piece for the living room. It serves for a couch and is equally as desirable for seating. Plate D shows an excellent pattern.

Such a large piece of furniture must be carefully planned for, though it need not be placed against a wall. Out in the

floor in front of the fireplace is a good location for it.

Choose a dignified pattern, and above all a comfortable one. If your living room is small do not pick out a davenport of the largest size.
be finished to match, the utmost in beautiful effect is obtained.

The Morris Chair.

For a comfortable chair the Morris idea has never been improved upon. A living room without a Morris chair is hardly to be thought of. Plate E shows an excellent special pattern in which solidity is combined with comfort. The back reclines and the seat slides forward. Nothing but structural comfort should be in a Morris chair. This rule followed, you will have a piece of furniture that every member of the family will respect.

There are many good materials for covering the cushions of an easy chair. Spanish leather in shades of brown, green or gray, wears well and looks well, and tapestry, cotton and silk velour of medium weight come in many pretty patterns suitable for chair cushions.

Cushions should have as few buttons as possible. Plain cushions of simple material without button crevices to harbor dirt are probably best.

The Arm Rocker.

The most comfortable chair for women is a rocker with broad, low seat. For short folk a cushion in the back of the chair will throw the body forward so the feet will touch the floor. Tall folk sit farther back without a back cushion. Plate G shows an excellent design in wicker. Plate B shows a good pattern in figured velour.

Its balance is the most important thing about a successful rocker. The center of gravity should be far enough back at the end of the seat so that when a chair stands alone the seat will be at slight inclination to the level of the floor. If the seat is parallel with the floor discard such a model, as the tendency when sitting will be to slide forward. In a really comfortable rocker one slides down toward the back.

The Side Chairs.

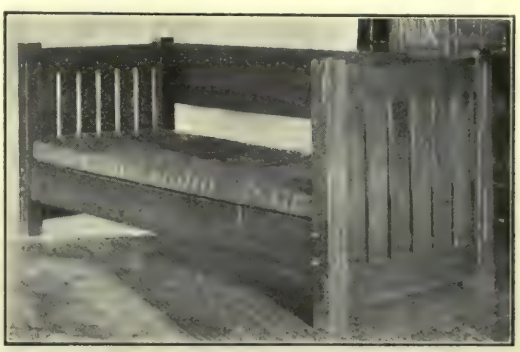
Every living room should have several side chairs for general use and they may be as attractive as any others. It does not cost any more to have good looking, easy side chairs than ugly, uncomfortable ones. Side chairs should be smaller than ordinary ones and part ought to be rockers and part straight-back chairs. Plate E shows two unusual, made-to-order chairs of attractive design.

Chairs with rush or wicker seats are always practical and in appearance they are very attractive (Plate G), also chairs covered with the pretty figured damask now used so much two of which are shown in Plate B.

The Music Cabinet.

Most frequently the piano stands in the living room and a music cabinet is required. Let it be of the same dignified, practical pattern as the other pieces.

The most useful is a cabinet with adjustable shelves, for you may arrange the distance between them to suit yourself. Some musicians prefer to file music vertically instead of horizontally, making it possible to get at any sheet or volume



(Plate D) WELL BUILT, ATTRACTIVELY DESIGNED LIVING ROOM DAVENPORT OF OAK WITH SPANISH LEATHER CUSHION



(Plate E) LIVING ROOM WITH FIREPLACE OF PLAIN ROMAN BRICK IN SHADES OF TAN. ALL FURNITURE WAS MADE TO ORDER —Frank Lloyd Wright, Architect

without lifting a copy above. Sketch the method you prefer, send it to any manufacturer and he will procure for you the arrangement of pigeon holes best for your use.

Screen.

There is always some spot in the living room where a screen would be desirable. Do not buy a screen merely for decoration but use it for what it is intended—to protect you from a draught, or conceal the work basket or some other prosaic article which must stand in the living room.

You may buy a screen and have it covered as you like or do the work yourself. Leather is an excellent material to use, or heavy monk's cloth or burlap. If you choose leather select that tanned in soft brown, green or copper shades.

When cloth is used decorate it with little stencil designs, using dyes or stencil inks. A design of straight lines or small square and round spots is more dignified for a living room than more complicated floral patterns. If the cloth is of light buff or natural color burlap stenciled in soft, pastel shades of green, brown, red or blue, the effect will be charming.

Color.

After choosing furniture give thought to the colors for the room, as many a fine design has been ruined by lack of taste.

Light, fumed finishes are always attractive for oak. This process seems to bring out the grain and it takes on a beautiful, soft half-tone.

A deeper shade of brown is attractive also. Probably the least pleasing of all are dark brown, blackish and greenish finishes. These colors are apt to appear gloomy whereas lighter finshes give a cheerful cast to the room. Mahogany is always pleasing for furniture.



(Plate G) LIVING ROOM PORCH USED ALL THE YEAR ROUND AS A SITTING ROOM. OAK LATTICE WORK AND WICKER FURNITURE —Henry K. Holsman, Architect

All the living room furniture should be dull finish. It is better to have each piece the same color and if the trim can

A living room in which furniture and trim are the same color, has a restful, peaceful air, always a delight to everyone lucky enough to live there.

It is well to note, however, that mahogany furniture is charming with white trim.

Curtains and Rugs.

Finish your living room with an oak floor light in color and lay rugs of plain patterns. One large rug may be placed under the living room table, others should be smaller. To retain the pretty effect of an oak floor use rugs sparingly. Leave plenty of bare spots at the edge where there is not much wear. Put your rugs where persons will sit; at the piano, in front of the book case, near the fireplace. Rugs are first of all to provide something more comfortable to stand upon than a bare floor, and secondly to add decorative values to the room.

At windows, hang the kind of curtains you will be able to keep up with least effort, not the sort that will be a source of hard work. Buy durable materials in plain patterns, as in Plate G.

Curtains of raw silk are very pleasing and there are scores of desirable linen and cotton materials, both plain and figured. Hang them simply on curtain rods with curtains extending down to the sill only. Do not put up fussy over-curtains. Make them with inconspicuous looping or pleating and you will find the living-room more attractive and housework greatly facilitated.



A GRACEFUL PLANT WITH FINELY CUT FOLIAGE AND MASSES OF WHITE FLOWERS

The Flower Garden in Mid-Summer

A Trying Period, Yet Much May Be Accomplished

By TARKINGTON BAKER

Author of Yard and Garden

AMONG the hardy perennials none is stronger, hardier or more vigorous than the hemerocallis. To most of us it is known as the yellow day lily, others call it the tawny day lily. These names, however, really represent two different varieties—hemerocallis flava and hemerocallis fulva. The first is probably the more common and is to be found in all old-fashioned gardens. It is a most useful and desirable herbaceous plant, succeeding splendidly in all situations, though blooming, of course, only where the surroundings are most congenial. The yellow day lily produces its large, fragrant yellow flowers in July and August, and when not in bloom its foliage is always attractive. Where there is space for it, nothing is more attractive than a large plantation of the flava. It takes excellent care of itself, spreading and reproducing itself through extensions underground of its root system. Half a dozen plants, set three feet apart, will, in three years, spread over an amazingly large space. This is likewise true of hemerocallis fulva, the tawny day lily, which bears its orange colored flowers in the same months. Flava attains a height of three feet while fulva grows a foot taller. The latter, on this account, is the better of the two for planting with shrubs, though both are excellent for the purpose. There is a double variety of fulva that is also very attractive.

Other varieties of hemerocallis are also to be had, and the amateur would do well to make a plantation in which all the sorts appear. They grow well together, presenting bloom over a long period—from June until late in September. One of the earliest to bloom is H. Aurantiaca, bearing exceedingly large, trumpet-shaped, bright orange-yellow flowers in June. H. Aurantiaca major blooms a week or two later and its flowers are much larger than the other, while



ONE OF JULY'S BEST FLOWERS—THE HARDY PHLOX

they are borne, too, in greater profusion. On well-established plants, the sweet-scented, deep orange flowers often measure five inches in diameter. Another variety that blooms in June—prolonging its season until late in July—is H. Dumortieri, a very useful variety, especially for edging plantations of hemerocallis. H. Dumortieri attains a height of two feet and produces its flowers in lily-like clusters. They are of a soft, rich yellow color and very decorative. H. Florham has sweet-scented, golden-yellow blooms producing its flowers in June and July. H. gold-dust is a variety of comparatively recent origin with very large golden-yellow flowers in July and August. H. Middendorfii is another dwarf, growing, usually, about eighteen inches high and producing its golden-yellow flowers in June and July. One of the best of the hemerocallises is H. Thunbergii, one of the latest to flower. Its sweet-scented, lemon-yellow flowers appear on stems thirty inches high in August and September. All are of the easiest cultivation, though, of course, they thrive and bloom to best advantage in a deep, rich soil and in a semi-shaded situation. They do amazingly well, however, either in



HEMEROCALLIS FULVA

full sunlight or in dense shade. They can be grown with fair success on the north side of a house where the sun's rays never fall and, though they do not bloom well in such a situation, nevertheless their foliage serves to cover a bare spot where, in many instances, other plants would not grow.

* * *

Whoever wants a second crop of roses this year must not fail to cut back the hybrid perpetuals as soon as the June display is at an end. At the same time, cultivate the beds, digging carefully about the plants, and applying fertilizer. In pruning, cut back six or seven inches. Look closely, if you have been unwise enough to buy budded roses, for the appearance of suckers. If you let these grow, they will kill your favorite variety and give you in return only wild rose wood.

After cultivating the rose beds, mulch with grass clippings or similar material. This is, of course, in case you make use of commercial fertilizers. If, however, you employ well-rotted manure, this serves the double purpose of mulch and fertilizer. In any event, make sure that the roses do not suffer for lack of moisture this month.

Spray every ten or twelve days with potassium sulphide—one ounce to two gallons of water—to prevent mildew. Bordeaux mixture may be substituted, but its use need not be so often.

* * *

Mow the grass frequently during July, allowing the clippings to remain on the lawn as a mulch. The roller should be used once or twice in July and, wherever possible, weeds should be uprooted.

* * *

July is the month for "pinching back." To keep chrysanthemums, cosmos and dahlias from growing tall and straggly,



MONARDA DIDYMA—ONE OF THE BRILLIANT PERENNIALS OF JULY

keep your thumb and forefinger diligently employed. Pinch back early to insure compactness of growth and greater quantity of flowers. Permit no annuals to go to seed if you desire continuous bloom. Cut the flowers daily, in the cool of the morning, and in cutting carry a bucket of water with you so that the flowers may be immersed immediately they are severed from the plants. If you are expecting to have a few geraniums next winter in the indoor window garden, select the plants now, as they grow in the beds and prevent those so selected from bearing flowers. Pinch out every truss of bloom as soon as it forms and apply nitrate of soda, sparingly, to encourage a rich and luxuriant growth of stem and foliage. If palms from indoors have been placed in the yard, shelter them from the direct rays of the sun or the foliage will be burned.

An excellent plant for carpeting bulb beds is the rock cress, Arabis albida. It is a perennial, easily raised from seed, extracts very little plant food from the soil, blooms when the bulbs bloom, produces white flowers that harmonize with all colors and supplies a mat of rich foliage. The seed may be planted now and by autumn there will be on hand a large supply of plantlets ready to be transferred to their permanent quarters. The rock cress is also excellent for edging shrubbery or the hardy borders.

Another excellent edging plant, though inclined to be a bit straggly, is iberis sempervirens. Its foliage is evergreen and in early spring its white flowers are borne in flat clusters so profusely as to hide completely the foliage. It is easily raised and succeeds very well in ordinary soil.

The seeds of both these perennials are inexpensive and, if obtained now and planted this month, will, together with

many other perennials and biennials, produce plants of good size by fall. Another perennial that should be sown this month is the larkspur. The hardy delphinium is one of the most popular plants of the border and, everything considered, deservedly so. They will establish themselves in any good garden soil and thrive splendidly if a little fertilizer is fed to them from time to time. The earliest of the larkspurs begins to bloom about the last week in June, and throughout July their various shades of blue are conspicuous features of the garden. Wherever they are planted dwarfer perennials that bloom in August should be planted with them. With these latter a little in front of the larkspurs it is possible to cut the delphiniums back in late July when they have finished blooming without leaving a hole in the border. When the larkspurs are cut back, another crop of flowers may be gathered within a few weeks. All the delphiniums prefer full exposure to the sun.

* * *

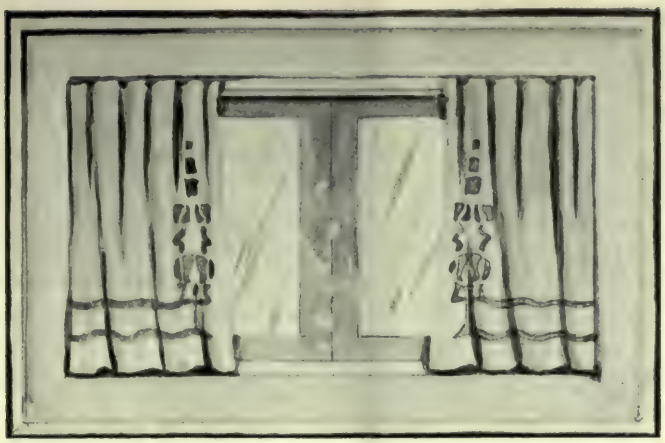
One of the flowers that may always be depended upon to make July gay with color is the hardy phlox—phlox paniculata. It sometimes happens, especially in damp seasons, that, about July 1, the phlox is attacked by mildew. To prevent the loss of foliage and the failure of bloom, treat the plants immediately with an application of powdered sulphur dusted on generously. This will check the mildew if applied in time. If, in surveying the beds and borders, a phlox blossom appears that is of a color that does not harmonize with those surrounding, tie a tag about the stem of the rogue and, in the autumn, transplant to more congenial quarters. At the same time, identify by some means the best plants, so that, if these have been long in the ground, they may later be lifted and divided and thus increased. The plants will be much benefited by a light mulch of grass clippings or rotted leaves at this season of the year and the bloom will be all the larger for this extra attention.

* * *

For a rich color effect, I know of nothing more splendid than monarda didyma. It is a showy plant, growing three or four feet high, succeeding in any soil or situation, but preferring full exposure to the sun, possessed of aromatic foliage and producing its brilliant red flowers in July and August. Whoever has seen a mass of it in bloom among the flowers of July will not soon forget the sight. A common name by which it is known is bee balm; some know it, too, by Oswego tea. The leaves are aromatic and the flowers are of curious form, borne at the ends of the stems. It is a blaze of color for many weeks, but its inclination to increase itself by leaps and bounds—literally—should counsel caution in planting it where space is limited, unless one is prepared to keep its roots well confined. The seed may be sown at once and the plants transferred in fall to their permanent quarters. The monarda combines effectively with the hardy shrub hydrangea paniculata grandiflora, and one of the most gorgeous sights I have ever seen in a garden was produced by a great mass of these two in combination.

* * *

A plant often seen in bloom in July that is not so well known as it deserves to be is the perennial meadow rue, thalictrum aquilegifolium. It is a graceful plant with finely cut foliage and masses of white flowers. There are varieties, too, with rose-colored blossoms. The thalictrum attains a height of about three feet, although there are varieties growing still taller, and adapts itself to almost any situation. It is suited best, however, by partial shade.



APPLIQUE OF SAGE GREEN LINEN OF SILK ON ECRU ARRAS CLOTH

Window Curtains for House and Bungalow

By MARGARET ANN LAURENCE

THE question as to the right kind of window decoration is always a serious one. It is no easy task to find a material with an interesting and appropriate design, that will be bold enough to give the desired effect when hung, and still be translucent even in the darkest parts of the pattern, so that the appearance against the light will not be a series of spots. Then, too, there is at the present time an unlimited variety of window treatments, so that it is something of a problem to select one that will give a distinctly individual appearance. There should be a certain uniformity about the appearance of the windows of the house, for this gives dignity and charm and the feeling that the selections have not been haphazard, and that the mistress has skill and taste. The windows on the first floor should have curtains of the same general effect, though they need not be all alike by any means. If net is used on the first floor, muslin may be used on the second.

To have the material and style of the curtains in harmony with the room and its furniture is a long step in the right direction toward making it successful. The average American home is not furnished in any special period, but has a general charm and comfortable air of its own, that is really most pleasing. The furniture may be Colonial, Mission, English or French, but whatever it is, it has a certain touch that stamps it of our own day. As to the hanging of window curtains, straight folds hanging from rods and reaching either to the floor or to the window sills or simply tied back, are in far better taste than any sort of fancy loopings and drapings. The beauty of straight lines is much appreciated nowadays—they give a feeling of strength and repose without harshness. The majority of our rooms, being only medium in size, need this feeling of a quiet background, and since people are more and more coming to understand this our houses are growing in beauty. The

straight lines and solid construction of Mission and Craftsman furniture naturally call for rather heavy hangings, simply hung. There is a cloth, something like a burlap, made of jute and linen—called Arras and sometimes Bungalow cloth, which comes in beautiful soft colors, of which very attractive side hangings can be made. It may be stenciled or, better still, treated with an applique—which gives a very rich effect. A pleasing conventional motif, cut from silk, or velvet, or heavy linen, is arranged at intervals upon the cloth and outlined or couched round with a strand of some contrasting color of Roman floss. The design should be stamped on both the foundation material and upon the fabric to be appliqued—so that it can be correctly cut and placed. Four threads of Roman floss couched down with a coarse button stitch makes an effective finish for small pieces of the applique, and Rope silk is better for the larger pieces and heavier materials. Curtains of golden brown Arras cloth having a design in orange, couched with dark brown thread, makes an attractive color combination. Or a red brown background with a flower design having the center petals yellow—outlined in dark brown; the outer part of the flower and stalks being a medium light green. A broad band of a darker green linen could extend across the width of the curtain, at the top and bottom, the depth of the hem. A soft sage green curtain appliqued with cream and old blue and a bit of tan, outlined with black, is charming. The color combinations, however, are endless, and each one must choose what is best suited to her own case. A very artistic dining room curtain is made of linen, the tan shade usually found in Holland material, appliqued with a simple grape design. The leaves are a soft shade of green, while the grapes are of coarser linen, in two tones of dull purple. Both the fruit and the leaves are outlined with the overlap stitch, beautifully and evenly worked, after the design has been overcast to the foundation. The leaves are outlined with a brighter shade of green and the grapes with terra cotta. The stalk of the vine is of tobacco brown outlined with the same shade. Curtains of this character should be sash length, and may be hung from brass rods.

They should not be too wide, and sufficient margin should be allowed for a hem on the edge following the border, and for a casing at the top. The thin stuffs are many and charming, and with a little time and patience can be made into beautiful hangings. The nets—Brussels and fish, and the finer meshes—can be had at any department store. It takes two widths for a window—making them the length of the inside of the window frame, after allowing for hems and casings. Finish the edges with a hem, fastened by weaving with a bodkin, three rows of stitches, running under two and over two holes of the net. The thread used should be a moderately heavy mercerized floss. This can be varied by having the under stitches in the second row correspond with the over stitches of the first row. These can be decorated in various ways—remnants of coarse, inexpensive lace are often seen at the department stores, or motifs suitable for an applique may be cut from old and otherwise useless lace curtains. Baste the net on stiff paper and baste the motif onto the net, finishing the edges by outlining with the floss. These same nets may be dyed to match the color scheme of a room. Some seen recently were a dull blue—the tone that is softened rather than intensified by the light coming through. The only decoration was a border of silver gimp sewed just above the two-inch hem.

Scrim, muslin and swiss are inexpen-



VALANCE TREATMENT FOR STENCILED CURTAINS

sive, dainty and washable. They may be stenciled, embroidered or combined with the heavy cotton or linen laces. For bed rooms the stenciled fabrics are much used—for by this means the colors and motifs of the wall paper can be carried out. The curtains should be entirely finished and stenciled afterwards. Wonderfully effective are results obtained from a combination of stenciling and embroidery. The motif to be outlined with contrasting colors of thread or floss—or they may be darned, using a long and short stitch, or some French dots in the center of a stencil flower enriches it greatly. Of course the design must be adapted to suit the various types and sizes of the curtains used.

If the paper is plain, the curtain should carry a heavier decoration than if the surface of the paper is plain. A beautiful set of curtains recently shown had an all over design of butterflies stenciled, three or four inches apart, and for a border a flower motif was used. This was all carried out in shades of brown, yellow, reds and greens.

For an all over pattern it is necessary to plan how many figures will go across and up and down; measure evenly—marking with a lead pencil or pins the spaces for each repeat. After the color has been applied, before removing the stencil, place over the work a warm flat iron and dry thoroughly. This keeps the

stencil flat and sets the color in the goods.

The valance has come back into favor again. For a broad, high window, this gives a charming effect. The valance if carried clear across over the side curtains must of course be placed on separate rods. It is frequently run between the side curtains, one pole being used for all. This same treatment may be used if two windows are close together. There need be no curtain between—a deep ruffle at the top connects the two sides, giving the feeling of complete composition.

One very attractive way to arrange muslin curtains is to have them cut in four parts for each window; the two upper sections reaching just below the division of the upper and lower sashes and drawn together, while the lower sections —reaching to the sill—are run on another rod that is hidden by the upper sections. These are pushed back at the sides and allowed to hang straight. They are called Dutch curtains and are very dainty when done in ruffled muslin. Blue and white Japanese cotton crepe is one of the good things to use in a dining room, if one has old blue china to display in groups upon the walls. If the windows of a room are so narrow one cannot spare an inch of the light and air the curtain rods can extend beyond the window frame a little space, so that the side curtains hang over the woodwork and wall, thus widening the proportions of the windows without using up any of the much needed light.

Construction Details of the Home

The Interior—Plastering, Finishing and Laying of Floors

By H. EDWARD WALKER

(Continued from previous number)

THE item of plastering is important, as the appearance of the walls depend so much upon it, no matter how it is decorated.

It is advised that a good patent plaster of well known manufacture be used, applied as directed by the maker. All possibility of settlement of the house should be reduced to the minimum by care in its construction, that plaster cracks may be few. It is difficult to conceal a crack once it is made, for wall coverings soon separate along the line, unless of woven material. Small cracks occur, due to shrinkage of timber about openings, and are well nigh unavoidable.

Wood lath is usual for interior work because of its moderate cost, but expanded metal is more desirable if one can afford it.

Back plastering between the outside studs is common in practice, but cracks often make it almost useless. Good insulating material is made of hair, flax fibre or sea weed between paper, and is used on walls between studs, outside upon the sheathing or as a deadener between floors.

Grounds.

Before lathing, grounds ⅝ inch in thickness should be nailed in place about all openings back of base boards and in all places where finish is to be attached. The practice of omitting grounds should

be condemned, for finish nailed to plaster only, often comes loose.

Plaster Surfaces.

Putty coat should be used in all kitchens, bath rooms, etc., where a smooth wall is desirable, or that is to be decorated with a wall covering, such as paper or fabric.

Sand finish is suitable for tint or flat toned paint usually in dens, or rooms in Craftsman effects. Sand finish should not be decided upon hastily. If the decorative scheme is for all time it can be carried out very successfully, but if a change is made to papered walls, it must all be thoroughly scraped, causing expense and annoyance from dirt.

Finish.

Many excellent stock designs of finish are now obtainable, and for the average house of moderate cost are very acceptable. The architect will recommend what is suitable for the house he has designed.

A wood that is to be finished natural or stained to bring out the beauty of the grain, will be best with few mouldings. If, however, the finish is to be painted, mouldings in correct architectural style should be carefully followed for each curve and projection will receive its full value in the even color of the paint.

Special finish, such as beams, columns, seats, mantels, sideboards, etc., should be carefully considered in relation to the finish of the doors and windows and with each other, that all may be in harmony. A Craftsman mantel is not proper with Colonial finish even if of the same kind of wood. Do not use more than one variety of wood in a room unless upon advice of a capable designer. Mahogany finished doors are sometimes used, with white enamel, or flat toned white, with mahogany furniture. Don't put an oak mantel in a birch finished or painted room.

Floors.

Oak is confined usually to the lower floor. Hardwoods come in narrow strips and are less liable to open cracks than the wider run. Very thin flooring may become loose and rattle when walked upon. A good parquet flooring is usually so well laid that this objection is not encountered. No finish or flooring should be delivered that has not been thoroughly kiln dried, and then only after the plastering is entirely dry.

The kitchen floor should be recessed and covered with linoleum. It will last for years and even at a good price per yard is cheaper than the continual outlay for oil, varnish or shellac and workmanship necessary for a wood surface. The saving in household labor cannot be estimated.

Tile floors seem very good and sanitary for the bathroom, but every mark shows upon them, making it necessary to be continually wiping it up to keep in sightly condition. Cement floors are universally used for the basement.

Care should be used in laying floors to have a level underfloor laid diagonally as a foundation. Flooring laid in the same direction as the underfloor will open up at the joints between the boards below in winter and hump up over each joint in summer, even if it was originally delivered well kiln dried. Hardwood flooring comes end tongue and groved and with nail holes, making it possible to produce a good floor with care in laying. White pine floors are used very little, quarter sawed hard pine and vertical grained fir being used as substitutes. Birch is used extensively for both floors, and some beech.



THE OLD-TIME METHOD OF DUST AND DISORDER

Vacuum Cleaning

A Modern Method That Will Soon Be Universal

VACUUM cleaning has passed beyond its theoretic and experimental stages, and is now to be counted among the accepted and demonstrated accomplishments of building management. In common, it is rapidly taking its place with modern plumbing, heating and lighting. There always remains a certain demand for portable lamps, portable bath tubs, portable heating stoves, and the like, and so there will continue to be a general market for portable vacuum cleaners. But the time is here when the builder of every house which is of sufficient size to justify the installation of modern plumbing, a furnace in the cellar and gas or electric lighting, will provide for the stationary cleaning plant.

The first builders of suction cleaning devices started out on the theory of high pressure and small tools and pipes. This necessarily involved the use of delicate and somewhat complicated machinery, the air pumps usually being of the diaphragm type and consequently easily put out of order and expensive of operation and upkeep.

It is somewhat disconcerting to note that the greater portion of builders of stationary suction cleaners should have failed to correct this fundamental weakness in the construction of their machines. Yet many of the later models of stationary cleaners are even now being constructed on the same high pressure, low volume, small area principle, with the result that many buildings, designed to include the best of everything available, in the way of modern appointments, are being piped with absurdly small and inadequate pipes, absolutely incapable of carrying the volume of air so essential in perfect cleaning, which is normally moved by the low pressure, high volume, vacuum machine of modern design, used



RENOVATING CARPETS AND RUGS

in connection with tools of large area.

There can be no question that the low pressure machines are to be the generally accepted type for the future, as they are capable of performing vastly greater service than the high pressure machines with small tools and limited pipe capacity. Moreover they are simple in construction, they require a minimum of power and are economical of upkeep and operation.

The piping in any case should not be less than 2½ inches inside diameter (with 2-inch openings for intakes), in order to allow an ample volume of air to be carried and to eliminate all possibility of clogging. Sufficient number of intakes should be placed at intervals throughout the house to insure convenient hose connections and to allow the use of the minimum length of hose. For the foregoing reasons the use of smaller pipe is a false economy besides being a trouble breeder in that it exempts any possibility of installing the more efficient and satisfactory cleaning system.

Briefly speaking, the most practical method of cleaning by air is to have a plant equipped with a centrifugal fan directly connected with the shaft driven by the motor. By this construction it is possible to confine the wearing surfaces to two ball bearings which, being kept in constant oil bath, reduce the friction to a minimum. The entire device, including dust tank and exhaust, should be installed in the basement with connection to the chimney for carrying off the foul air. This guarantees the most practical machine from the mechanical standpoint and the most efficient system from the standpoint of the buyer and ultimate user.

But the influence of the vacuum cleaner extends beyond the mere sanitary phase in its ultimate results.

Home furnishings are changing as to methods because of it. The loose rugs which have found favor to such an extent in recent years because of the ease with which the room could be cleaned, are about to give place to the old fashioned tacked carpet.

Once placed in position the carpet need only be taken up because of wear, its cleanliness is assured by this modern method. Thus does invention influence art and decoration.



THE MOST COMMON IS THE RUSTIC GARDEN-HOUSE

Garden and Summer Houses

The Beauty of the Home Grounds Is Much Enhanced by These Charming Structures

By HUGO ERICHSEN

THAT a well-designed and properly constructed garden-house, when placed in a suitable location, materially adds to the beauty of a garden, no man, in the language of our old friend, Captain Cuttle, can gainsay.

The reward of gardening, which consists in the delightful contemplation of the bright hues and forms of a profusion of sweet flowers, will be better enjoyed and more thoroughly realized if the amateur gardener rejoices in the possession of a garden-house, wherein he may cogitate on plans for the future, or, perhaps, with family and friends, partake of the cup that cheers. For it must be confessed that there is a certain fascination in sitting out of doors, when the weather is suitable.

Few objects are better calculated to lend an air of character and distinction to the garden or summer-houses, and, on the contrary, certainly none are more liable to make it an artistic failure than such structures, if they are of an ugly and commonplace design.

Good taste must be our guide in this respect, as it must be in so many others. Too heavy structures or flimsily constructed matchwood erections must both be avoided. Stone will not do as a building material, unless there are other architectural features, such as a terrace, in the garden or, at least, a massive garden wall. Though I do not believe, with Lor-



A PERMANENT GARDEN-HOUSE OF EXCELLENT DESIGN



THE GARDEN BORDERS THE LAKE

ing Underwood, that "these miniature houses offer almost as much chance for the display of skillful architectural design as the true dwelling house," I am nevertheless of the opinion that it pays, from an artistic point of view, to expend much thought upon a suitable structure and upon the site it is to occupy.

A small garden-house is especially useful where there are children, as it can be fitted up as a sort of an outdoor play room, with shelves, to contain the little one's effects, and miniature chairs and tables. On wet days the children can be banished here for hours at a time, and their delight at having a little house of their own is only equaled by that of their parents at having them happily employed well out of hearing.

A summer-house is, of course, a more pretentious structure, being not only a mere shelter from sun and rain, but also



ON THE GARDEN-HOUSE WALL



THE PORTABLE SCREENED-IN SUMMER-HOUSE HAS ADVANTAGES



BUILT ABOUT A TREE THIS RESTING PLACE IS WELL SHADED



A PRETENTIOUS SUMMER-HOUSE NEAR A LAKE

not infrequently a place of outdoor entertainment. As a rule it only consists of one story, but when there are two, the upper is generally unenclosed. Though of a very simple construction, it is usually provided with door and windows. As for decoration and furnishing—these should, of course, be as unostentatious as possible, more attention being paid to comfort than to luxury.

Though it is very essential that direct sunshine be excluded from the summer-house, it should be remembered that a light, airy interior is of all things desirable.

For the same reason windows should be excluded from the garden-house, nor should the little structure be boarded up. Darkness and dirt are synonymous terms, and the little garden-house will generally be festooned with cobwebs if there is only a narrow doorway for admitting light and air. One is almost inclined to say, the less furniture there is in the garden-house the better. Permanent seats are not advisable, as they cannot well be made with any degree of comfort, and the whole of the interior should be left free to accommodate a table and one or two wooden chairs, which may be kept there during the summer.

I have already alluded to the importance of a suitable size. Where this commands a magnificent view, such as the shimmering expanse of a lake or the distant mountain side, a raised platform under the spreading branches of a tree may answer every purpose and will appear quite appropriate.

One point that should never be forgotten in connection with a garden-house is its accessibility.

Designs for the Home-Builder

Design B 259.



HERE IS a great charm in the quaint Colonial type to which this house belongs. Precedent has been closely followed even to the slight projection of cornice and small bed-mould.

The columns are historically correct and the pergola effect and vine lattice are simple but distinctive features. The rough shakes stained, form a beautiful contrast to the white trim. Muntins divide the sash into small lights. It is these minor details which give character and architectural style. The house has birch floors throughout and the interior trim is of mahogany and flat toned white. The handrail of stair, the back band of casings and the upper member of the base are in mahogany forming a true Colonial finish.

The living room contains a fireplace and the dining room a recess for the sideboard. The plan is well arranged and if another chamber is desired the owner's room could readily be divided. The attic is of fair size. Laundry in basement. Hot water heat. Size 36 ft. 4 in., by 34 ft. 10 in. without porches. First story 9 ft. high, second story 8 ft. 6 in. The architect's statement of cost is $6,500.

Design B 260.

This is a substantial Colonial house 32 x 36 ft., with gambrel roof and broad frontage, wide piazza across the front with solid foundation and concrete floor. There is a full basement and the stories above are 9 ft. and 8 ft. 6 in. respectively. The main rooms have coved ceilings and are finished in hard woods, the chamber in enamel. The living room contains a fireplace. The architect's estimate of $4,500 would include a furnace.

Design B 261.

Hollow tile waterproofed, and given an exterior surfacing of cream white stucco is used in the construction of this bungalow. In contrast to this is the foundation and porch parapet walls laid up in red brick and white mortar. The roof is slated but stained shingles either gray, green or brown would be very effective. A tile roof would be particularly pleasing.

The house is well supplied with closets, the pantry is well arranged and the refrigerator is iced from the outside. The two chambers and bath on first floor are arranged to give privacy from the other rooms of the floor. There are two good chambers above. Finish and floor of birch with enameled finish in chambers. Size 24 ft. by 44 ft. The architect put a price of from $3,000 to $3,800, including the better grade of materials for roof, etc., and a hot water plant. There is a fireplace in the living room.

Design B 262.

For a house only 22 ft. by 30 ft. there is more room in this design than might be expected. Note the size of the living room and the admirable arrangement of the stove in combination, the kitchen with the basement stove below with an outside entrance at grade. The den is a feature often appreciated.

The first story has oak floor borders and oak finish in old English style waxed. The second story is in white enamel with mahoganized birch doors. First story 9 ft. and second story 8 ft. 6 in. Steam heat. The architect states that the house cost $3,000 as erected with first story sided and gable ends of shingle.

Design B 263.

This is a charming cottage veneered with brick in English bond for the first story, shingled walls above and trimmings in white. The living room contains a large fireplace with seats on either side. Note the vista this arrangement of plans gives across dining room, hall, living room and sun porch. The rear entry at grade affords entrance to kitchen or basement. Finish of first story fumed oak. Clear birch floors throughout. Second story white enamel. Furnace heat. Size 31 by 24. The architect states that the cost was $4,000.

Design B 264.

A bungalow with four or five chambers on the first floor, calls for such a large foundation, that it would greatly exceed the cost of a two-story home containing the same number of rooms. The modern bungalow usually provides for a spare room or two upon the second floor, which are given light and air by the means of dormers.

This bungalow contains besides two chambers on the first floor, a spare chamber on the second floor with space for two more small chambers, all being connected with the hall leading directly to bathroom.

The exterior is cement stucco, interior finish red oak throughout the living room and dining room, with unselected birch for the balance. Maple floors throughout, and hot air heating plant. Height of first story 9 ft. 6 in., height of second story, 8 ft. Full basement with cement floor, divided off into vegetable cellar, laundry, furnace and fuel room. Cost to build, including heating and plumbing, $3,000.

Design B 265.

The advantage and desirability of cobblestone is shown in this design, having been used for porch piers and chimneys with striking effect. The bungalow contains a reception hall, living room with fireplace, a dining room with sideboard and a kitchen adjacent, completely fitted. Off the private hall is located two good chambers, a linen closet and bathroom. The dining room is not connected with the living room, a feature which could be readily arranged if desired. This design was built in a warm climate and no provision was made for a heating plant or basement. Same could be arranged at small additional expense. The finish is of birch for the principal rooms with white enamel in the chambers. Floors are of birch throughout.

The height of story is 9 feet 6 inches. The attic affords ventilation only. The size is 28 feet wide by 36 feet deep. The cost is estimated at $3,300, including plumbing.

Design B 266.

A design for a full two-story modern house of frame construction, the entire exterior of which is shingled. The design is well adapted, however, to clapboards or stucco. The wide porch and overhanging cornice give considerable character to the design.

The floor plan is especially desirable, as it is well arranged and passageway from kitchen to front door is secured without passing through any other rooms. It will be noticed that dining room is placed on front part of house, this position being much favored nowadays. Dining room, living room, kitchen, pantry and all modern conveniences are provided on first floor. A full basement, hot air heating apparatus, plumbing, etc., are also included in the cost estimate.

The finish is to be pine, poplar or cypress, painted or stained.

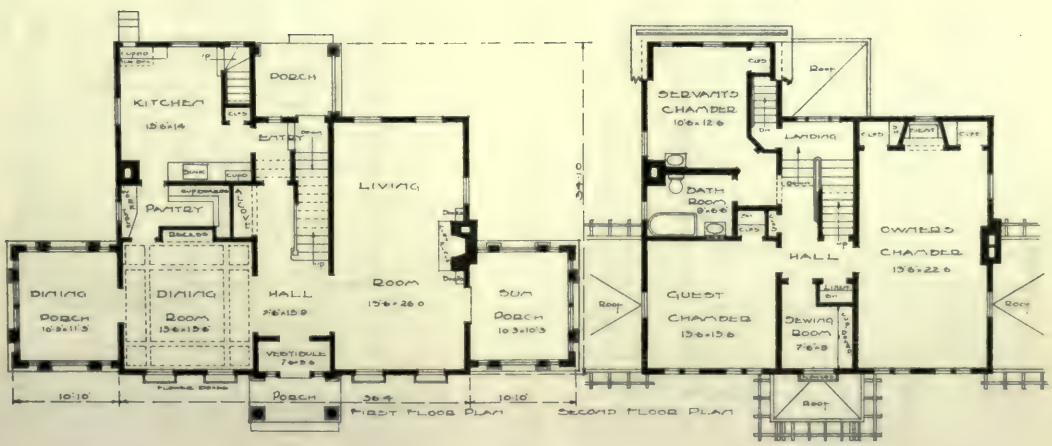
Width, 32 feet; depth, 26 feet; height of basement, 7 feet, 6 inches; first story, 8 feet, 3 inches; second story, 8 feet, 3 inches. Estimated cost, $3,700.



Cecil Bayless Chapman, Architect

A Quaint Revival of An Early Style

DESIGN B 259

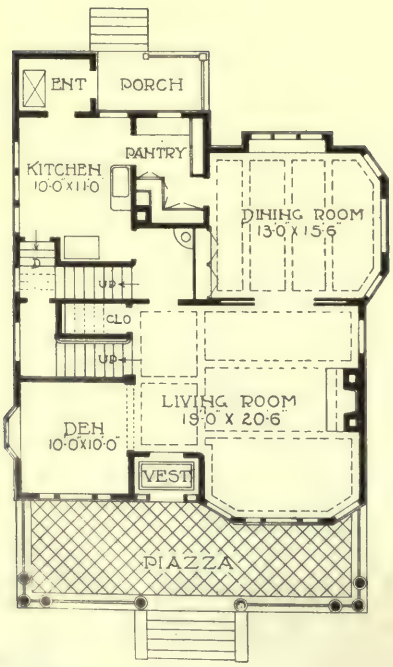


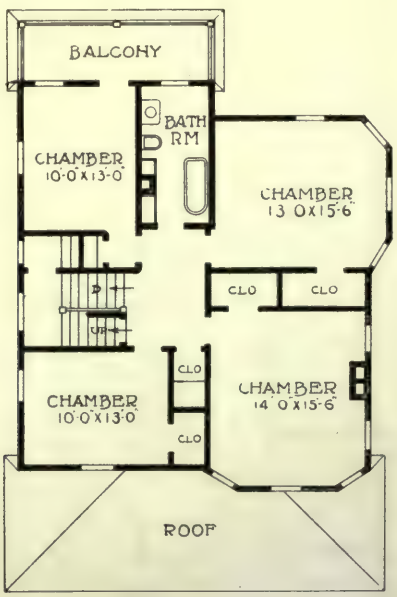


Chas. S. Sedgwick, Architect

On Dignified Colonial Lines

DESIGN B 260



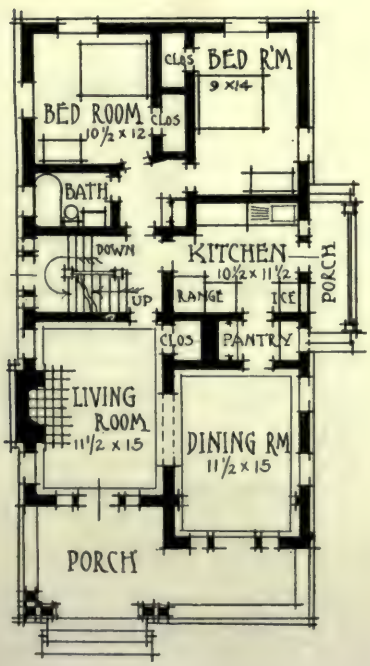


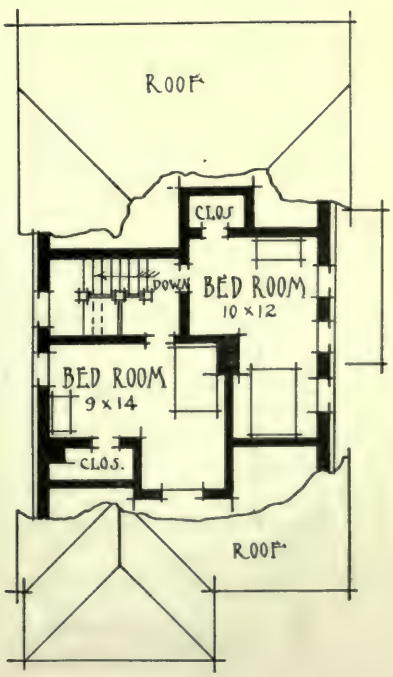


John Henry Newson, Architect

A Bungalow of Cement and Brick

DESIGN B 261



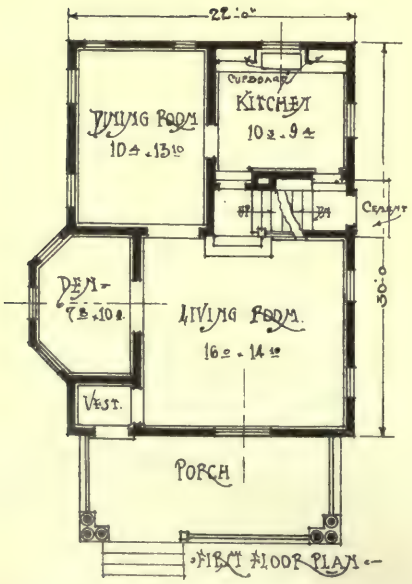


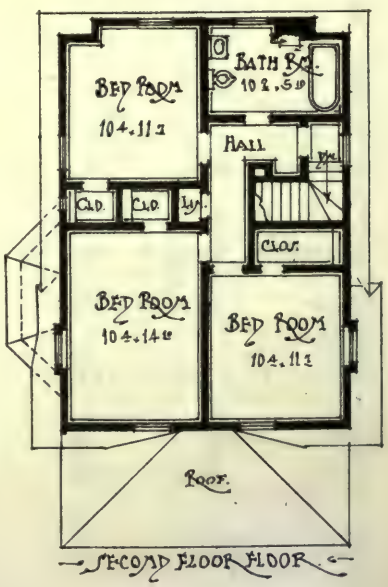


A. M. Worthington, Architect

A Cozy Cottage With Gambrel Roof

DESIGN B 262



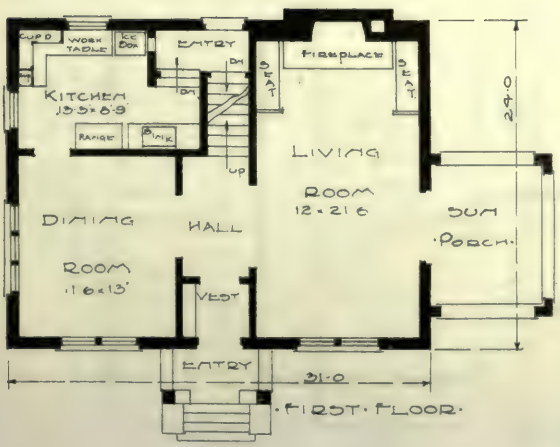


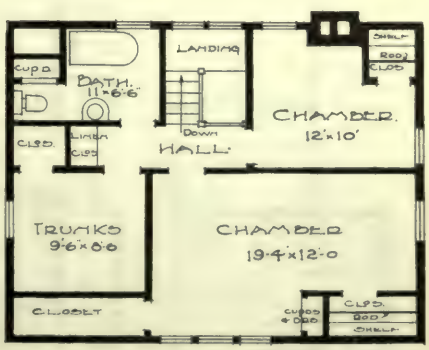


Carl A. Gage, Architect

A Pleasing Combination of Shingle and Brick

DESIGN B 263





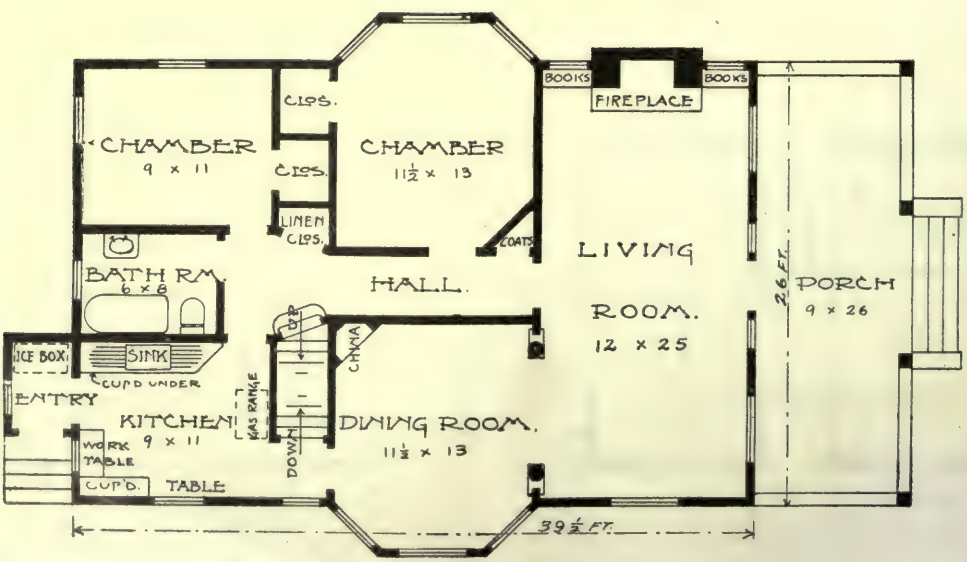
SECOND FLOOR



Arthur C. Clausen, Architect

A Bungalow Design in Stucco

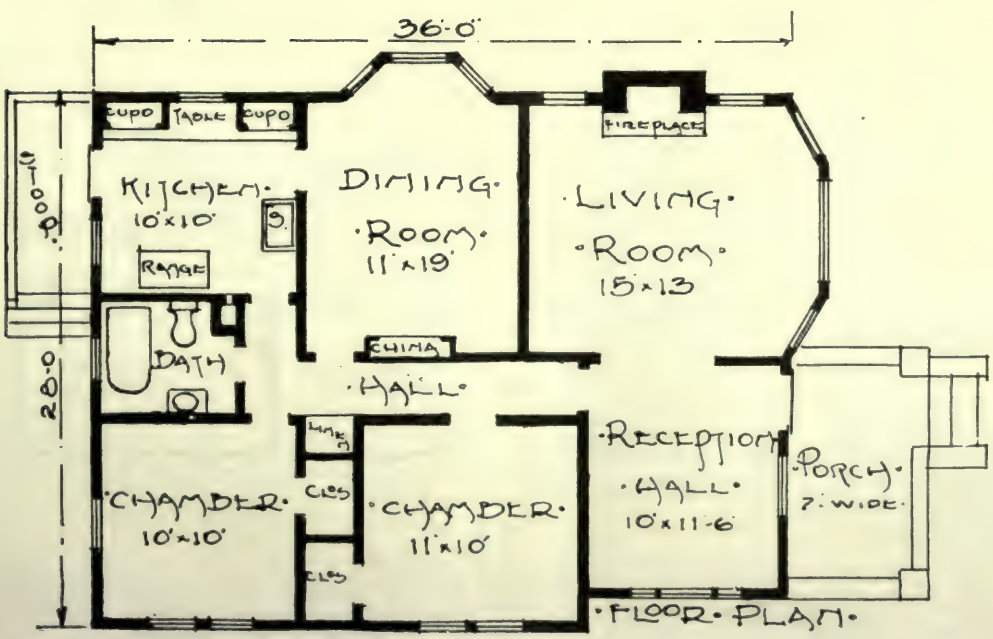
DESIGN B 264





Cobble-Stones, Shingles and Cement

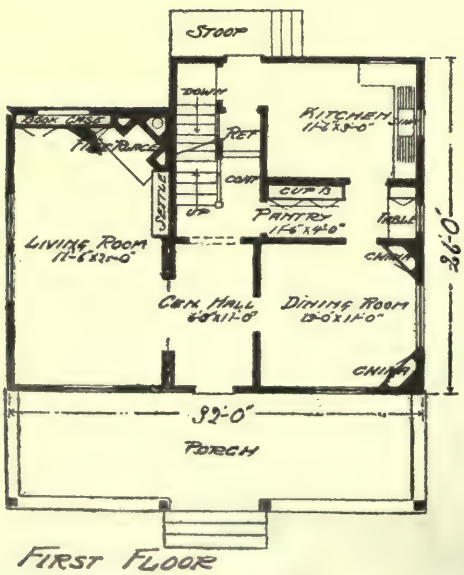
DESIGN B 265



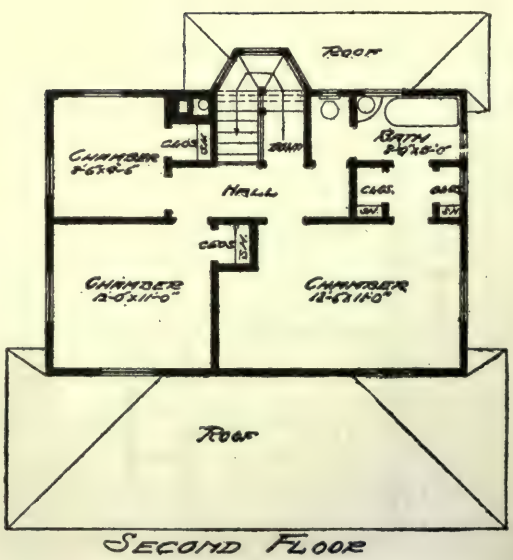


A Simple, Restful Home

DESIGN B 266



FIRST FLOOR



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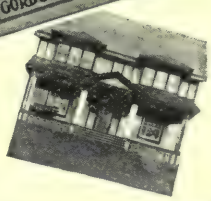
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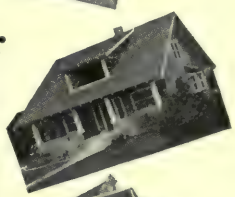
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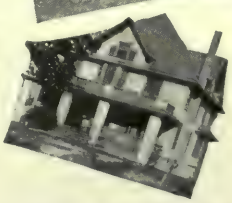
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Making the Best of an Old House.

THE writer knows a woman in one of the smaller New England cities, who was obliged, by a death in her husband's family to move from her very charming modern house to an adjoining one, of the type which might be described as a Mid-Victorian mansion. Not only the house but the furniture was inherited, and her own house was to be rented furnished.

Everything in the old house was good of its kind, and was in admirable preservation. The problem was to devise a decorative scheme which should divert attention from the bad points of the house and make the best of its good ones. For after all, the old houses of that type had the merit of space and the sort of dignity which comes from lofty ceilings and generous window and door openings.

The Possibilities of Cretonne.

The solution that presented itself was a generous use of cretonne. In the large drawing room the walls were papered with an almost plain paper of greenish gray, with a deep drop on the side wall of a lighter tone, and a still fainter tint on the ceiling. The light colored Moquette carpet was made into a rug and dyed green, of the same tone, but several shades darker.

French Gray Paint.

There was a vast array of upholstered furniture, with walnut frames and impossible coverings. The covers were removed, the frames treated to an exhaustive soaking and scrubbing with potash lye, to remove the varnish. With four thin, even coats of very light gray paint, they were transformed. Later they were covered with a Liberty cretonne in soft greens and pinks. More of the cretonne curtained the windows and edged table covers of gray raw silk, and it was also used for shades for two tall lamps. The marble mantel was painted gray, and had a mirror above it in a flat gray frame, brass candlesticks and a pair of flowered Dresden vases, and a few old prints, with wide margins, in narrow gilt frames hung upon the walls. Nothing was out of keeping, yet the whole effect was excellent, and sufficiently modern.

Lilac and Yellow.

In one of the bedrooms a successful scheme of lilac and yellow was worked out. Here the wall was papered a clear yellow, lighter than daffodil, darker than cowslip. The woodwork was white, the floor matted. A thirty inch space below the cornice was covered with an imported paper, lilacs and green leaves on a white ground, separated from the yellow of the main part of the wall by a white moulding. In this room were gathered a few pieces of mahogany, a bureau, a corner washstand and a small table. A sofa and some of the multitudinous armchairs were fitted with slip covers of a lilac patterned cretonne, and the green of the lilac leaves was repeated in rugs at the sides of the white iron bed, and before the dressing table and wash stand. A white wicker armchair and tabourette kept the white enamel of the bedstead company.

Orange Brown and Black Walnut.

In the dining room the only practicable thing was to remove the finish from the heavy walnut furniture and to detach the glued-on ornaments ending with beeswax and turpentine and rubbing to a dull finish. An imported paper in a blurred effect of burnt orange tones



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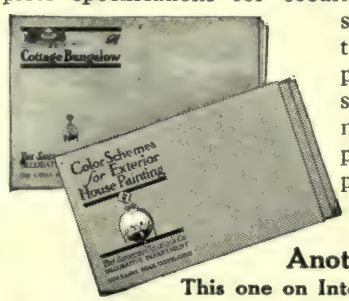
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Another Portfolio
This one on Interior Decoration

This Portfolio shows an attractive cottage bungalow, decorated and furnished throughout. Each room, as well as three exteriors, and a veranda, are shown in their actual colors, and accompanying each plate are carefully worked out specifications. Even the curtains, rugs, draperies and furniture are suggested. You can adapt any or all of the color combinations in the Portfolio, or our Decorative Department will prepare without cost special suggestions to be used, upon request.
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made a good background. Curtains of Arabian net, a rug of dull reds, blues and brown, and covers of grayish toned lace for sideboard and serving tables were supplemented by a judicious display of china and silver.

Wherever the old furniture was used it was subjected to the pruning process and the excrescences disappeared. In the case of bedsteads, the headboards were lowered to very nearly the same height as the footboard. With some of the bureaus it was possible to make an improvement by removing the mirror and hanging it flatly against the wall, with its longest dimension parallel to the length of the bureau. The objectionable feature of much of this old walnut furniture is not so much its style of construction, which is much the same as that of the French pieces to which we have become accustomed of late years, but its heavily varnished surface and its profusion of applied ornament. Remove these and you have often an admirable piece of furniture, solid and dignified. Associate it with a covering of good design and positive color like the English cretonnes, and you may achieve positive charm. To the amateur with the decorative instinct few things are hopeless, least of all Mid-Victorian walnut.

Buying Heirlooms.

It is a pertinent recommendation that we should buy heirlooms, in other words that we should furnish for posterity as well as ourselves. If we bought our belongings with the thought of having something to pass on to another generation, we should be saved many an ill-judged selection.

This consideration applies specially to furniture, which ought to be good for much more than the lifetime of its possessor. Happily the business of reproducing the best designs of Georgian and Colonial mahogany has been carried on so successfully that it is an easy matter to find furniture to pass on. But other things than design enter into it, construction and solidity. The chair, or chest of drawers, or bedstead, or desk, which is to endure for a hundred years, as a joy to its possessors, must be well proportioned, and of a charming simplicity, if it is to please the eyes of a generation which will of necessity have had more art training than ours. Moreover it must be of a certain degree of solidity if it is to withstand the ravages of the super-heat and frequent removals of American life.

So in buying the needed furniture for today let us get mahogany reproductions of the best and simplest designs of the old cabinet makers, putting our money into the quality of the wood and the careful construction of the bed, or chair, or whatever it may be, rather than into elaborate ornament which is sure to be damaged with the inevitable progress of time.

The Return of the Corner Washstand.

For the guest chamber of the country house, or for the city bedroom without plumbing, the old fashioned corner washstands are much sought for. With carefully fitted covers of lace edged linen and bowl and pitcher of quaintly flowered china, they look extremely well in a secluded corner, and they have the advantage of being more readily screened off than a rectangular stand. For a blue and white bedroom it is possible to get a great variety of English stoneware bowls and pitchers, in varying shades of blue. Not the least attractive of these is the familiar willow pattern. There are also bowls and pitchers to be had in both sorts of Canton china, the blue willow and the Medallion ware, or as it is sometimes called, the Green India. Naturally neither of them is cheap, but they as well as furniture might be regarded as heirlooms.

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Painting New Wood Work

Every builder of a house has the question of painting that house before him for consideration. This subject is of such importance that it will be wise for him to look into it with great care for upon the selection and application of the first coat of paint depends the way the other coats of paint will wear---yes, and the house, too, for if the paint doesn't wear well the house won't wear well either.



White lead guaranteed pure by the Dutch Boy Painter trade-mark mixed with pure linseed oil in the proper proportion makes paint that is unsurpassed. It should be used not only for body and finishing coats but for priming as well. Don't use cheap paint for a primer.

A white lead primer satisfies the wood, in other words, fills the pores of the wood and prepares it for the coats that follow.

For the finishing coats Dutch Boy Painter white lead and pure linseed oil are mixed different from the priming coat.

The consistency of the paint differs and this is as it should be. No paint should be used alike for both priming and finishing, and by using made-to-order white lead paint the necessary variation is easily accomplished.

We tell more about paint and painting in our free Painting Helps for property-owners. They contain color schemes, miscellaneous painting directions and names of "Blue List" Painters in your community—who use "Dutch Boy Painter" White Lead.

If you want them write to our nearest branch for "Painting Helps No. 164."

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Coloring Rough Plaster.

The question of tinting walls is such a difficult one that the builder of a new house which must remain unpapered for a year or two often takes refuge in merely leaving his walls in the original gray. Someone suggests the use of an oil stain as being more satisfactory than any of the kalsomine preparations sold. It can be used in almost any color and being more or less transparent allows the agreeable texture of the plaster to be seen, instead of its being smeared over with a perfectly dense layer of color.

Prairie Grass Furniture in Brown.

This season has seen a great deal of the familiar prairie grass furniture put on the market, but in a very good brown shade rather than in the somewhat crude green, with which we have so long been familiar. Some of the chairs and settles shown are of admirable shapes and generous proportions, and there is a particularly good Davenport. Another excellent piece is a tall and broad screen, of closely woven grass.

This sort of furniture looks much better when it is associated with wooden pieces. An entire room furnished with it is monotonous in the extreme. It combines very well with fumed oak, and looks extremely well with cretonne cushions showing shades of red, blue and tan. It also looks well with some shades of blue, but the choice is one of difficulty and delicacy.

Silver Gray Wicker.

In ordinary wicker furniture there is a finish known as silver gray, which is most effective in combination with pink and green cretonne cushions. Nothing could be prettier for the piazza of a house painted gray than some of this furniture, with long piazza boxes of rose pink geraniums.

New Brass Beds.

Notwithstanding the great popularity of the wooden bed, many people prefer the metal ones, and from the sanitary point of view they certainly have substantial recommendations. The newest brass beds are extremely solid in construction, with square posts, in the satin finish, and have panels of gilded cane inserted in the head and footboard. Such a bed is charming in a room with mahogany furniture and a flowered wall paper, and the dull finish is less overpowering than the burnished brass to which we have been so long accustomed.

The Merits of the Marble Mantel.

Many people have travailed in soul over their perfectly respectable, even desirable marble mantel pieces. To them the writer commends an account in a recent book, of a Pennsylvania house, one of whose glories is a pair of black marble mantels, not much different from those found in many city houses of the better class. One can think of color schemes to which the black marble mantel might be an admirable foil. In the house in question one of the mantels was in a living room with a blue wall paper, the other in a bedroom with mahogany furniture and a floral paper of old reds and browns.

A Unique Wedding Present.

A recent bride was the recipient of a present as unusual as it was delightful. She was to begin housekeeping immediately and her husband's mother undertook the furnishing of the kitchen. Every thing that she could possibly need was bought and in ample quantity while the quality was superlative. Among other things there was a complete outfit of copper saucepans, a possession for a lifetime. All the latest appliances for saving labor were remembered, and there was a liberal supply of delightful French stoneware, casseroles, baking dishes, ramekins and a petite marmite for soup. The color scheme was blue and white wherever practicable, extending to the oilcloth on the floor, the borders of dish and roller towels, the dots on the muslin sash curtains and the lines in the glass towelling. It may go without saying that the lady expected to do her own housework.

The outfit included a small tool chest, floor oil, a can of fine varnish, a can of wax finish and an array of brushes, so that trifling damages could be quickly remedied without the need of calling in a mechanic.



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ANSWERS TO QUESTIONS
ON INTERIOR DECORATION

Editor's Note.—The courtesies of our Correspondence Department are extended to all readers of *Keith's Magazine.* Inquiries pertaining to the decoration and furnishing of the home will be given the attention of an expert.

Letters intended for answer in this column should be addressed to Decoration and Furnishing Department, and be accompanied by a diagram of floor plan. Letters enclosing return postage will be answered by mail. Such replies as are of general interest will be published in these columns.

R. T. W.—I am enclosing floor of my new home.

The entrance hall, parlor and living room will be furnished in red oak. What color scheme would you suggest for these rooms as they open into each other?

The end of living room near fireplace will have colonnade with seat and book cases.

What would you think of the shades of brown and tan in hall, brown with a little soft old blue in living room, rug, etc., in parlor? How would you have woodwork finished?

Would you advise stenciled portiere curtains? If so what material?

The bed room will be finished in birdseye maple, the kitchen and lavatory in birch and the dining room in red oak.

There will be beamed ceiling and built-in china closet and buffet in dining room. What color scheme would you suggest for it and how finish woodwork?

R. T. W.—In reply to your inquiry, would say that brown oak stain is advised for the woodwork in hall, living room and silver grey stain for the woodwork in parlor and dining room.

Your idea of browns and tans for hall is very good, with soft ecru walls and ceiling in living room, but greens and blues rather than brown and blue in rug and furnishings. Then do the parlor walls with a duplex paper in self-toned all-over design, all soft grey with dull blue rug and furnishings. Make the dining room wall a warmer, putty grey, with crimson rug and touch of old red at windows and you have a lovely suite of rooms. Both the old blue and the soft red go beautifully with the silvery grey woodwork which is more like dark oxidized silver.

The birdseye maple in north bed room should be finished natural and the room carried out in soft dull yellows. It seems a pity to put birch in the kitchen, but it may be cheap with you. Finish it natural and varnish.

B. S.—I am building a duplex flat and desire to tint walls and not decorate with paper, etc., for at least six months or a year. The enclosed sketch will give you the layout of rooms, etc. Will you kindly make recommendations for interior painting and tinting? The bed rooms and bath are to be finished in white enamel and I think I'd like "living room" the same. State particularly how the alcove and vestibule (downstairs flat) should be finished.

New furniture will be purchased for dining room, either oak or mahogany, which ever will give the best effect in a north dining room, but am a little partial to oak.

For bed room No. 1, birch furniture; for No. 2, mahogany; No. 3 is maid's room. All floors are maple with varnish finish. I have a lot of carpets; most of it too new to dispose of.

B. S.—Ans. White woodwork is a good choice for the bed rooms, but I should not advise it for your living room. Instead it is advised to use a dark mahogany stain and to make the walls a soft, warm ecru. This will be a suitable and agreeable treatment of a north room. The alcove and vestibule should have the same treatment as living room. Then, if you use green rug and furnishings, the effect will be good. You can use oak in the north dining room with golden tan walls, and gold color ceiling. But mahogany woodwork, cream colored walls and mahogany furniture would be fine too.

W. C.—We have recently bought a house which we are remodeling. It faces east and south. We have floors of Caledonia pine and will have white wood-

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work. We have one large rug in tans and brown, golden oak dining room furniture, living room furniture part mahogany and part oak. For the bedrooms have one old mahogany bed and bureau, a brass bed and birdseye maple bureau and chairs. Please suggest wall papers, furniture and curtains.

W. C. Ans.—In your dining room, with your golden oak furniture, would suggest a low-toned green wall, rather than blue, with the woodwork either stained to match the furniture, or painted green to two or three shades darker than the paper. You will find white woodwork very incongruous with your oak furniture. You might with either treatment of the wood have a paper combining blue and green, with the wall above the plate rail colored a greenish gray. Have a plain green rug, or one in two or three tones of green, cream colored net curtains to the sill, with inner curtains of green raw silk. In the living room, I would discard the oak bookcase and the Morris chair. You might put the chair in the dining room, covering its cushions with green Craftsman canvas. The bookcase might stand in the hall, opposite the staircase.

Paper the living room with a warm, golden brown, either figured or striped, in two tones. Change your green velvet cushions for a verdure tapestry, one of the French copies of old tapestries with strong brown and russet tones. Besides the mahogany pieces would have a large easy chair covered with this. For the centre of the room get either a plain mahogany despatch table, or one of the gate leg tables. You can have one of these stained to match your mahogany. Get any other pieces needed of wicker, stained or painted mahogany, with cushions of russet brown corduroy. For curtains, there is a very good net in ecru, with a pattern which suggests the leading of latticed windows, costing forty cents a yard. Either edge it with a narrow braid, or hem it plainly.

I should not duplicate the living room rug for the hall, but would get one with brown and tan predominating, with touches of green, blue and red. Paper the walls with warm tan, something with considerable pattern in self color, using an ivory drop ceiling and a heavy picture moulding. If you carpet the stairs use a plain velvet, in one of the brown tones of your rug.

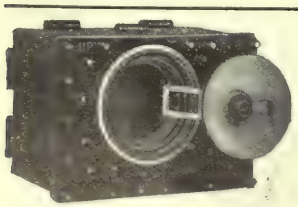
For the bedroom with the mahogany furniture, work out a blue scheme, with a white drop ceiling. Use for furnishings the blue and white cotton taffeta, which comes in a large and effective pattern of low toned blues on a white ground. Have a plain blue wall of the darkest shade of this taffeta. Have dark blue and white rag rugs and natural wicker chairs.

For the other bedroom have a cream colored wall, either cartridge paper, or a ceiling paper with a satin pattern, and a wide frieze of lilacs, using a side wall paper, laying it about two and a half feet down from the ceiling. Use a lilac patterned cretonne, or plain lavender linen for furnishings, with lavender cotton rugs.

Have the walls of the three attic bedrooms tinted alike, a very light gray, with white woodwork. In one use a rose patterned cretonne; in another a cretonne in the quaint design and bright colors of old crewel embroidery; in the third a white sateen with a striking design of scarlet poinsettias.

L. C. S.—Kindly tell me your idea of a fireplace in a room 16x27, with ivory white trim and mahogany doors. Would you have an ivory fireplace 7x4½ with a mahogany shelf and brackets, or a dark brick or tile in terra cotta or mottled or a mottled cream terra cotta and olive green furnishings or mahoganies and pink browns?

L. C. S.—Ans. In reply to your recent inquiry, if your room is a drawing room with delicate furnishings, have the mantel all ivory with cream tile; inset decorative tile, of make stated, at the corners in pale terra cottas, dull blues and greens. If the room is more strongly furnished, have the mantel all mahogany, with either cream brick or tile for facings.



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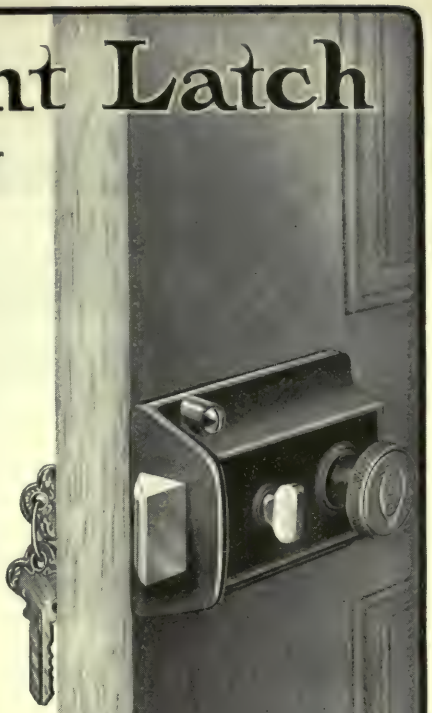
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The Living Standard.

IN these hard times, when a large number of us are struggling with the problem of adapting the advanced cost of living to a stationary income, it is well to emphasize two points. One is that there is, for every family, a standard of comfort which must be maintained if its members are to do normally efficient work; the other is that economy is very largely a matter of judicious purchase.

What we may call the standard of efficiency is something which varies largely with families. The family whose members are engaged in manual labor requires a larger amount of food, of more substantial quality than the family of the professional man. A growing boy is not satisfied with the same quantity of food as his grandmother, who sits in her chair all day long, with possibly a short walk on the piazza. The precise limit of this standard it is the business of the housewife to ascertain. Its establishment and its maintenance is her business, a part of her profession as a housewife. And unhappily for large classes of the community, it is an obligation which she does not always recognize, or is poorly fitted to fulfill. The varied economic organizations of the cities, and the cooking classes of the public schools are doing something to help her out, but there is still great room for improvement, as well as large numbers of women who are untouched by the modern economic movement, and are muddling along anyway.

This standard of efficiency as regards food is a thing which cannot be juggled with. The sort of place you live in is somewhat a matter of choice, but you must have enough to eat, and of the right kind of food. If you can substitute a cheap form of proteid for a dear one, and put the money you save into rent, or the interest on your mortgage, it is so much clear gain, but so much proteid you must have, or the whole family suffers.

Economy in Buying.

We are all too apt to think of economy as wholly a matter of going without, whereas it is largely a matter of judicious distribution. It is like the old conception of charity as giving, whereas we know now that often the truest charity is withholding.

It is almost axiomatic that the easy purchase is generally the extravagant one. It is one of the drawbacks of the telephone that it makes it so easy to order at long range, rather than to buy in person. And when one sees how the humblest tradesman installs one as a matter of course, it seems as if he must realize his advantage. Really economical buying involves a knowledge of the best places to buy special articles. No one buys in the open market who buys meat, fruit, vegetables and groceries all at the same store, however convenient it may be. There may, of course, be compensating circumstances, in special instances, and in small communities, but it is the exception which proves the rule.

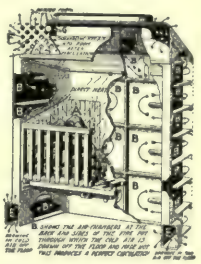
A good many people pride themselves upon only buying at first class shops. If one wants luxuries he must go to a first class shop, but when he buys staples at such a shop, he adds to the cost of his staple a contribution toward the high rent and the handsome fittings of the

YOU can get as much heat with one Aldine Fireplace and save 60 per cent of your fuel bill as from four common grates.



This is because it is really a return draft stove in fireplace form. 85 per cent of the heat is thrown out into the room instead of 85 per cent being wasted as in common grates.

It can be set in any chimney opening at half the cost of a common grate, no special chimney construction is necessary, no pipe to connect, extra large fire pot; made in seven patterns, at prices no higher than any good common grate.



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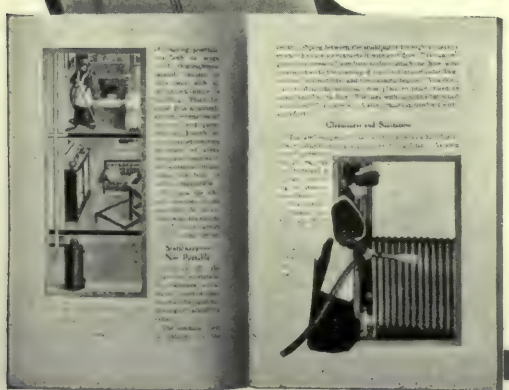
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because it gives valuable information on that which makes for health in the family, convenience in housekeeping and economy in household expense—*stationary air cleaning*. It also shows why you should have your house piped with 2½-in. pipe to secure the most effective cleaning and gives full details of the working principles which make the

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the most satisfactory system to install. If you read this book you will realize that stationary air cleaning is a kindred convenience to heating, lighting and plumbing, you will see that you can't afford to be without it, and you will want the system that has been proven the most sanitary, most durable and most economical—the TUEC.

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THE UNITED ELECTRIC CO.

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shop, besides, as someone expressed it, "paying for white paper and pink string." If you feel so benevolently toward the shop keeper that you want to help him with his rent, it is a laudable sentiment, but it is not economy.

The principle of specialization has a great deal to do with buying judiciously. The dweller in a city has a great advantage in being able to buy in the shops of the foreign quarters. If you patronize a shop where the majority of the customers are Italians you will get oil, olives, macaroni and various sorts of beans much cheaper than in an American shop, and the quality is better, because the average Italian is a connoisseur in these things. The Germans have a taste for pastry and similar sweets and the German baker has a great variety of delightful cakes and tarts, of admirable quality, and at comparatively low prices.

Another point is that the dealer who has a great deal of custom buys more cheaply and can sell on a closer margin than the man with half the amount of trade. For this reason, it is well to buy staple groceries at a department store. When it comes to buying meat, seek out the man who has a large trade, with a good proportion of well-to-do customers, who want the best quality of meat, as his cheap cuts will be as good as the best cuts of the dealer who buys a poorer quality of meat.

Things like this seem trifles, but economical management is a vast aggregation of trifles. Eternal vigilance is the price of safety, but it is eminently worth while. And nothing in life is quite so exasperating as paying out money with inadequate returns.

Taking Things Easily.

As the warm weather approaches, with its trial of body and soul to the greater part of us, it is well to make some sort of definite programme for easing the unavoidable strain of hot nights and super-heated days. The best prescription for summer comfort is to avoid hurry, and unnecessary work. If there is no way of avoiding fatiguing household tasks, they can at least be gotten out of the way early in the morning. But as to the greater part of the things we call essential they may very well be dispensed with altogether. Sweeping may be reduced to the daily dusting with a mop of bare floors. A large part of the washing can be left unironed, and the fireless cooker, or its home made substitute, will provide a sufficiency of substantial food, to be supplemented by cereals, fresh fruit and milk. Every hour spent out of doors not only adds to the reserve fund of health and strength, but diminishes the amount of work to be done.

Keeping Bed Rooms Cool.

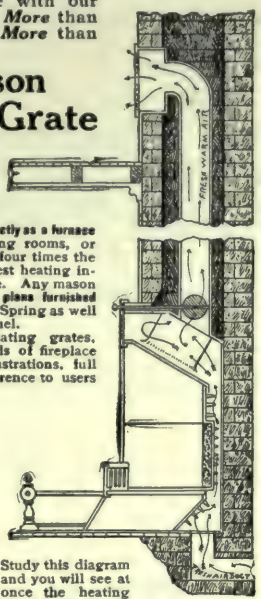
Sleeping in summer time is apt to be anything but easy, but there are helps, one of which is to lower the temperature of the sleeping room as much as possible. It takes resolution to keep windows and blinds shut on the sunny side of the house, but it can be done. Then, just as soon as the sun is away, open the windows, top and bottom, to let in the air, and later on throw wide the blinds. Wetting the window sills and the wire screens produces an evaporation which cools the entering air.



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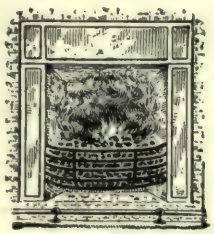
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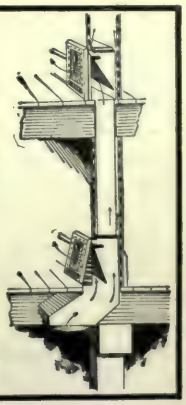
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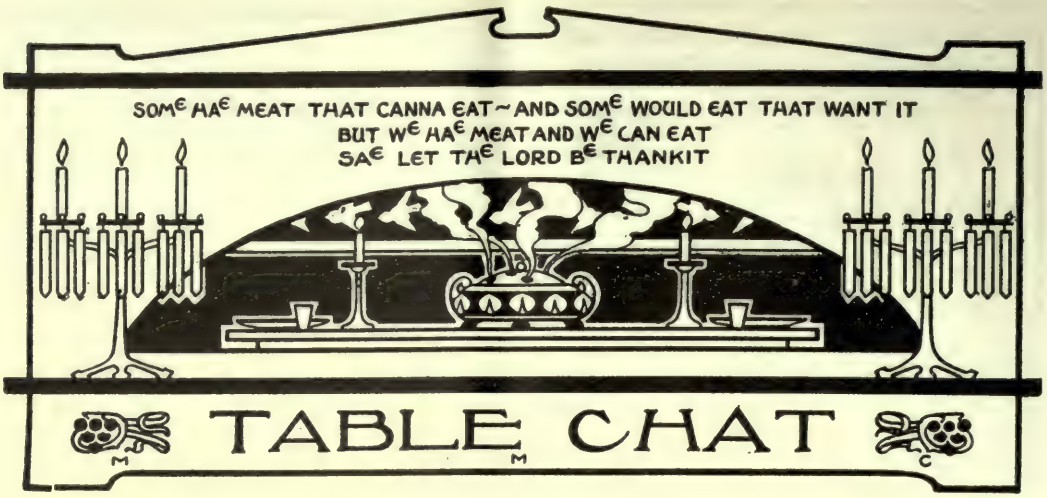


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By BEATRICE D'EMO



VANILLA AND CHOCOLATE ICE CREAM

THE modern freezer is a vastly different article to work with from the cumbersome old affair that required an hour or so of turning, followed by no means with certain success. Now the making of ice cream or water ice is simplicity itself, whether it be done in the dainty little miniature freezers which hold just enough for two or in the larger glass ones which are a delight to the sight, they are so cleanly, or in any of the many other kinds, each of which has some special virtue to recommend it. As each is accompanied by full directions for use we will not take up space in repeating these but go on to the compounding of the mixtures of the ices themselves.

It is presupposed the housekeeper will use only the best ingredients, for there is no disguising the unpleasant flavor of sour cream or stale eggs, and care should be taken to first beat the half-frozen



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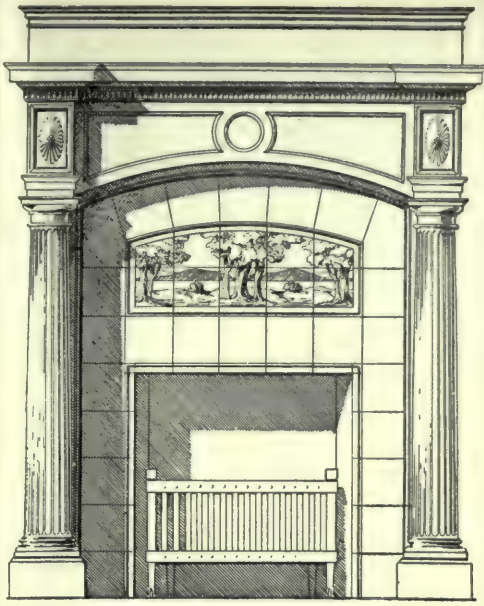
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No creaking of doors
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VANILLA ICE CREAM WITH CHOCOLATE SAUCE

dainty to perfect smoothness before finishing the process, then to give it plenty of time to ripen by being buried in salt and ice, so that when served it is neither rough nor soft. Fifteen to twenty minutee will be required for the actual making of the cream, but it should ripen for from three to six hours before serving.

If cream be plentiful it may be used without eggs in the following proportions: a quart of cream to half a pound of granulated sugar. Beat together, flavor as preferred, or add fruit or nuts, and freeze. For ice cream with eggs beat together a pint of milk, the yolks of two eggs, an even cupful of granulated sugar and one tablespoonful of cornstarch. Bring to the scalding point but do not boil. Whip the whites of the eggs with a pint of cream and mix with the custard after it has cooled, then flavor with a teaspoonful of vanilla, lemon or almond extract and freeze. This will make one quart of ice cream. Either of these recipes may be taken as a basis for almost any kind of cream, the addition of fruit, nuts or chocolate giving the title. If two kinds of cream are desired one must be frozen first and packed away, then the other frozen in turn. It is advisable to freeze the fruit or nut mixture first, because it takes longer to ripen than the plain.

Vanilla Ice Cream with Chocolate Sauce.

A very delicious dessert consists of hard frozen vanilla ice, around which is poured either maple or chocolate sauce, made by cooking a cupful of maple syrup until it forms a soft ball when dropped in ice water for the one; and for the chocolate sauce cooking together an ounce of scraped chocolate with a cupful of granulated sugar and half a cupful of water until it boils. Either syrup should be partially cool but not so cold as to be stiff when poured about the ice cream, which should then be served at once. Do not boil the syrup too long or it will be too stiff. Strawberry, raspberry or pineapple syrup may be used in similar fashion.

Chocolate Ice Cream.

Chocolate ice cream itself is made by stirring four ounces of scraped chocolate into a half-pint of sweet milk, then mixing it thoroughly with a quart of cream. Flavor with vanilla, beat well, add a cupful of granulated sugar, beat again and freeze. For chocolate custard ice cream —this merely meaning eggs are used and the mixture cooked before freezing— beat two eggs with a pint of granulated sugar, and pour over them slowly a pint of scalding hot milk. Add half a cupful of scraped chocolate, and heat in a double boiler until it begins to thicken, stirring constantly; then let cool and when per-

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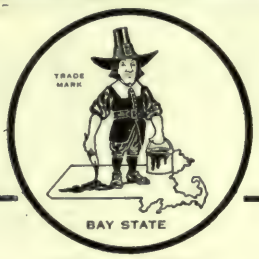
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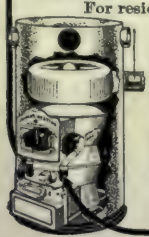
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COFFEE PARFAIT WITH WHIPPED CREAM

fectly cold freeze. Add chopped walnuts to either recipe and you will have a fine nut-chocolate cream. A cupful of the nut meats is about the right quantity. The nuts should be added when the cream is half frozen, and should be well beaten in.

Coffee Parfait.

Coffee parfait is a highly decorative dessert of the frozen variety. It is prettiest when served in high glasses, although it may also be molded. For sufficient for six people soak a tablespoonful of gelatine in a little cold water, and bring to the scalding point a pint of strained, strong black coffee with a cupful of sugar. Beat the yolks of four eggs very light, then add a cupful of granulated sugar and beat again. Stir in the hot coffee and cook until thick, when add the gelatine and strain into a bowl which has been wet with ice water to chill it. Stir, then fold in three cupfuls of cream which has been beaten stiff. Freeze, and at serving time fill the fancy glasses, then top each with whipped cream flavored with vanilla.

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Tutti Frutti Sherbet.

Tutti frutti ice cream is well known but tutti frutti sherbet is a novelty. To make it, simmer half a pound of pared and quartered peaches, sweetening them to taste. Rub them through a sieve, and also rub through the pulp of three bananas. Squeeze into this pulp the juice of three oranges and three lemons, or use the juice to force the pulp of the peaches and bananas through the sieve. Boil three cupfuls of granulated sugar with three cupfuls of water for twenty minutes, then strain into the fruit pulp. Let cool, then freeze as usual. This makes a good refreshment for a midsummer evening party and is a sort of punch and ice combined.

Nesselrode Pudding.

Nesselrode pudding is a very rich dessert which is considerable trouble to make, but which amply repays one for the trouble. Two dozen marron glaces may be used for it or the same number of large French chestnuts, or even the small domestic chestnuts. If the chestnuts are in the raw, shell them and put them in boiling water for five minutes, then remove the thin skin and boil them until they can be easily pierced with a knitting needle, boiling with them half a stick of vanilla bean and half of the very thinly pared rind of a lemon. The vanilla may be omitted and vanilla extract used later on. If the marrons are used this preliminary work is done away with. Drain and mash the chestnuts, then mix with them a quarter of a pound of powdered sugar, a wineglassful of maraschino and half a pint of rich cream. Soak three-quarters of an ounce of gelatine in a little cold water until soft, then stir it into a cupful of hot cream; stir in the chestnut mixture, and continue stirring until stiff and the nuts well mixed. Stir in also two ounces of picked over, washed and dried currants and an equal quantity of candied citron, cut into thin pieces. Pour the whole into a mold and set in ice for an hour.

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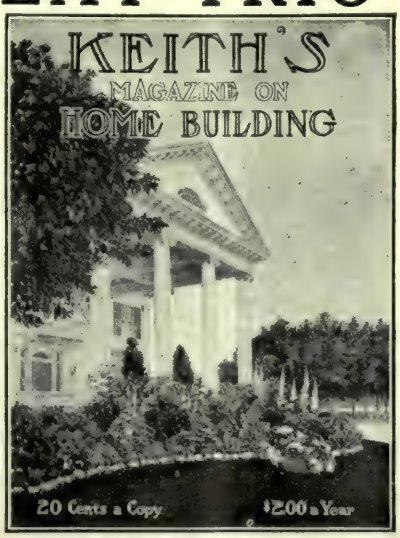
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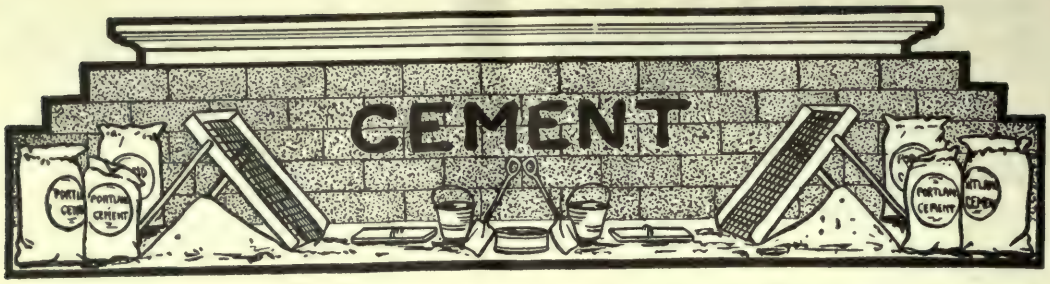
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(These specifications have been adopted by the Plaster Manufacturers Association for the guidance of all who use their products.)

Care of Plaster.

PLASTER must be stored in a dry, cool place and circulation of air through the warehouse avoided. Never place on the ground, against a damp wall, or in any damp place when delivered to the building.

Grounds.

For Plaster Board, Wood Lath, Wire and Metal Lath, grounds to be not less than ¾ of an inch.

For Plaster Blocks, Brick or Tile Walls, grounds to be not less than ½ of an inch.

Plaster Board.

To be applied according to manufacturer's directions.

Lathing.

For Wood Lath, use a good grade free from knots, sap and bark; to be spaced not less than ¼ of an inch apart and securely nailed with not less than two 3d galvanized lathing nails for each stud to each lath. Break joints every fifth (5th) lath and leave space for ¼ of an inch between ends of lath. Half-green laths are best. Dry laths must be thoroughly soaked the day before or not less than from two to five hours before the plaster is applied. This will prevent buckling. Do not extend lath through a partition wall.

General Directions for Mixing.

Use a clean, tight box, 3½ feet by 7 feet by 12 inches deep. The box should be thoroughly cleaned after each mixing and kept free from dirt and lumps of old plaster. Raise one end of the box about four inches.

Sand.

Quality: Use only clean, sharp sand free from loam, dirt and frost. Avoid quicksand. Sand should pass through a ten and remain on a thirty mesh sieve.

Quantity: For Plaster Board, Wood Lath, Wire and Metal Lath, use two parts of sand, of the quality above described, to one part of fibred plaster. For Plaster Blocks, Brick or Tile Walls, use three parts of sand, of the quality described above, to one part of unfibred plaster.

The above proportions in all cases to be by weight.

The following is a convenient way to arrive at the above proportions:

Two to one: Use six ten-quart buckets, struck measure, of sand, to a one-hundred pound bag of plaster, and five ten-quart buckets of sand, struck measure, to an eighty-pound bag of plaster.

Three to one: Use nine ten-quart buckets of sand, struck measure, to a one-hundred pound bag of plaster, and seven ten-quart buckets of sand, struck measure, to an eighty-pound bag of plaster.

If other than the above quality and quantities of sand are used, the manufacturer will not be responsible for the results obtained.

Mixing.

First put in a layer of sand, then one of plaster; hoe dry from one end of box to the other, then back again, working



Asbestos "Century" Shingle Roof—Stable of Theodore M. Davis, Newport, R. I.; Theodore Davis Boal, Washington D. C., Architect; Simpson Bros. Corp., Boston, Mass., Co..tractor

Asbestos "Century" Shingles

"The Roof that Outlives the Building"

FOR the sake of your building investment ask these four questions about every roofing material—

1. What protection does it give the building from fire, weather and time?
2. How long will it last?
3. Will it need repairs and painting?
4. What does it cost—including *upkeep charges?*

And remember this—

Asbestos "Century" Shingles are the only *truly* indestructible roofing known to the building trade. Made of *reinforced concrete,* compacted by tremendous hydraulic pressure.

Fire cannot burn them—crack, melt, chip or flake them. Rain and moist climate make them tougher and more elastic. They improve with time.

Asbestos "Century" Shingles are light in weight and are *practical.* Their first cost is just what you expect to pay for a first-class roof—*and they need no repairs or painting.*

You can get Asbestos "Century" Shingles in shapes to suit any architectural style—in several sizes—and in three colors: Newport Gray (silver gray), Slate (blue black) and Indian Red. Ask your representative roofer about this indestructible roofing—or write us. Send for booklet "Reinforced 1911." It will settle your roof problems to your great satisfaction.

The Keasbey & Mattison Company

Factors

AMBLER, PENNSYLVANIA

the sand and plaster until thoroughly mixed. Now draw the material to the high end of the box, put the water in the lower end of the box and hoe the plaster into the water. Mix water and plaster thoroughly. Mix thin at first then add sufficient dry plaster and sand to bring to proper consistency for applying. Let the mortar stand ten minutes after mixing with the water.

Mix with water immediately after the sand and plaster are dry mixed.

Always use clean water, free from alkali, salt and other impurities.

Never wash tools in water to be used in mixing plaster.

Keep tools and mortar board clean.

Have a separate barrel of water for washing tools.

Do not mix more material at one time than can be used in one hour.

Never re-temper plaster after it has commenced to set.

Do not mix one gauging with another.

General Directions for Applying.

On Plaster Board: First thoroughly fill the joints between the boards. By doing this a perfect bond is formed between the plaster in the board and the base coat. When this has set, apply the base or browning coat, filling out to grounds and darbying to a straight and even surface, ready to receive the finishing coat. Darby lightly and use water sparingly.

On Wire and Metal Lath.

Apply a scratch coat, lightly covering the lath and filling meshes, thoroughly brooming it before it sets. After the scratch coat has set firm and hard, but before it is dry, apply the second coat, bringing it to a straight and even surface with rod and darby, ready to receive the finishing coat. Darby lightly and use water sparingly.

On Wood Lath.

Lay on scratch coat lightly, but with sufficient pressure to obtain a good key, and follow with second coat, filling up to grounds. Darby lightly and use water sparingly.

Do not apply more at one time than can be darbied before material begins to set.

On Plaster Block, Brick Or Tile Walls.

First soak the walls thoroughly to reduce the suction. Apply sufficient material to fill out grounds. Bring to a straight and even surface with rod and darby, ready to receive the finishing coat. Darby lightly and use water sparingly.

On Concrete Walls and Ceilings.

Apply the material according to the directions of the manufacturer furnishing.

Care of Plaster Until Set.

During the summer months, protect walls and ceilings from hot and dry winds by closing up openings until the plaster has fully set and become hard.

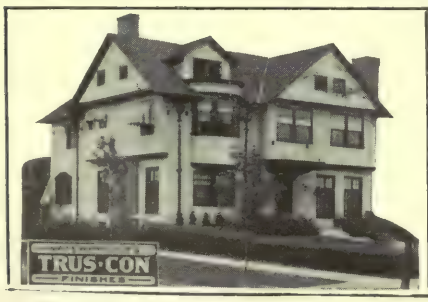
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For Damp and Stained Concrete Walls

Trus-Con Wall Finish, applied with a brush prevents and overcomes dampness, stains and efflorescence—protects walls with a uniform, decorative, flat finish without gloss—conceals hair cracks—enters into the surface pores, hardening and fusing with the concrete. **Does not peel or crack off** like paints. **Trus-Con Wall Finish** is furnished in a variety of colors, and is used with equal success on concrete, brick or masonry.
Write for **Free** Color Card. Tell us about your walls and we will send free suggestions.

KAHN SYSTEM Building Products

TRUSSED CONCRETE STEEL COMPANY
474 Trussed Concrete Building, Detroit, Michigan

Trus-Con Floor Enamel for dusty floors; **Trus-Con Paste** for waterproofing concrete; **Trus-Con Sno-Wite** for enameling interiors.

A Much Better Wall Can Be Built

with *Sackett Plaster Board* than with lath. Wood lath absorbs moisture when the wet plaster goes on, and swells. Then it afterwards dries out and contracts, pulling away from the plaster. The result is a loose wall which is liable to crack, and is neither fireproof nor soundproof. If such a wall or ceiling happens to be made of lime mortar and gets wet, the plaster loosens and falls—there is no strength in it.

Sackett Plaster Board

on the other hand, is fireproof and does not swell or buckle under any conditions. It is composed of alternate layers of calcined gypsum and strong fibrous felt, cut into sheets 32 x 36 inches—every one uniform—and about as thick as ordinary wood lath. Sackett is nailed direct to the studding, furring or joists, just the same as any other lathing material, and makes a firm, even surface for the plaster coat. If U. S. Gypsum Plaster goes on, the wall becomes a monolith, as solid as a rock, fireproof and soundproof.

Do not spoil a good house with poor walls. Use Sackett Plaster Board, the Nation's best lathing material, instead of lath. For full particulars write our nearest office. Ask for booklet "K."

United States Gypsum Company

New York Cleveland Chicago
Minneapolis Kansas City San Francisco

Trade **KNO-BURN** Mark

EXPANDED METAL PLASTERING LATH

Our *coated lath* is coated with the best quality of carbon paint and is *acid, alkali, and electrolysis proof.*

Our galvanized lath is *galvanized after expansion,* insuring a perfect covering of all sides of the strand.

For full information, write for our booklets K and O.

North Western Expanded Metal Co.

930-950 Old Colony Bldg., CHICAGO, ILL.



IN the subject of house painting we are given some very excellent and practical advice and ideas by Mr. George Walsh in a recent number of American Homes & Gardens. The query is put; "how often does a house require painting?" This is not to be answered arbitrarily. A cottage near the seashore may require painting every second year, while another located in a dry climate can go three or four years without a renewal of its outside coat. It is a mistake to let a house go until it begins to look as if it needed painting. Before the house begins to look shabby the property begins to deteriorate. When the paint begins to be powdery, or brittle, or porous, it needs renewal at once. The best way is to test the paint with the finger or knife. If the old paint chips off, or soaks up water, or can be rubbed off in a powder by the finger, the time has passed when the paint protects the wood. Underneath the paint the wood is disintegrating. Wood that is properly painted will practically last forever, but if not so protected it rots rapidly. Paint is thus an insurance just as important as that represented by a fire insurance policy. Lumber is more expensive than paint, and carpentry work more than either. The most important part of all paint is the linseed oil which is used to dissolve and mix the pigments, and so long as the oil lasts the paint protects the surface, but when the oil is "dead" the old paint has lost its protective value.

The composition of paint should thus be clearly understood in order to meet this question intelligently. The body of good paint consists of either white lead or oxide of zinc, or the two mixed, with such inert materials as gypsum, whiting, silica and barytes, and the various coloring pigments, such as lamp and bone black, red iron oxides, Prussian blues, ochres and chromes, umbers, siennas and other mineral elements. The universal solvent of these materials is pure linseed oil. There has never been found any adequate substitute for linseed oil, but many adulterated oils may be employed in cheap paints. Petroleum oil, cottonseed oil, fish oil and rosin oil are sometimes used as adulterants, but they never serve the purpose as satisfactorily as pure linseed oil. As a rule the paint which requires the greatest amount of linseed oil for its proper application is the most durable in color and use. Where quick drying is essential turpentine and benzine are often mixed with the paints, but these decrease the amount of oil and thicken the coat of pigments, and they give a "dead" surface which never lasts long.

Good paint can not, therefore, be tampered with, and it is much greater economy to have the work done in the mild, warm, dry days of autumn, when no artificial "dryer" is needed, than to hurry the work in the spring to avoid hot, blistering weather or a week of rain.

The house to be properly painted must be in a suitable condition. If the house is a new one the surface of wood must be dry and all sappy and knotty places covered with shellac in advance. Dryness of wood and weather are essential for painting either a new or old house. Even damp, foggy days will sometimes prevent paint from soaking properly in the wood and thus anchoring the whole coat. In repainting an old house all loose paint must first be removed.

We have a great variety of pleasing colors to select from today, but of the list of natural and artificial pigments comparatively few colors are really durable. It is not a satisfactory work to select a pleasing combination of tints, and then find after a few months that the colors have faded, leaving a decidedly blotched appearance. Permanence of colors as well as durability of the coat of paint are desirable. A color



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¶ OAK FLOORING imparts an air of refinement and elegance to a home. Its color is rich and cheerful.

¶ OAK FLORING ⅜" thickness can be laid over old floors at a very low cost, without disturbing the woodwork of a room.

¶ Specify and use OAK FLOORING. Its great wearing qualities insures best results. Any good architect or builder will advise that OAK FLOORING is an investment.

¶ OAK FLOORING is made in four grades, and is adaptable for cottage or palace.

¶ The living, renting and selling values of any building, large or small, is vastly increased by OAK FLOORING. Ask any truthful landlord.

Write us for further information.

The Oak Flooring Bureau

831 Hammond Bldg., Detroit, Mich.



No matter how modest or palatial, the new home should be finished with

Berry Brothers' Varnishes

The best varnish is always the most economical. It means longer wear, greater beauty, and lasting satisfaction.

The four architectural finishes listed below are the best you can obtain. Insist on having them used.

TRADE LIQUID GRANITE MARK

For finishing floors in the most durable manner possible.

WOOD LUXEBERRY FINISH

For the finest rubbed or polished finish on interior woodwork.

ELASTIC INTERIOR FINISH

For interior woodwork exposed to severe wear and finished in the full gloss.

ELASTIC OUTSIDE FINISH

For front doors and all other surfaces exposed to the weather.

BERRY BROTHERS, Ltd.

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Largest Varnish Makers in the World.

Address all Correspondence to DETROIT.

Factories: Detroit, Mich., and Walkerville, Ont.
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Dealers: Everywhere.

scheme, no matter how beautiful, if it quickly fades, must only serve to exasperate. The aniline lakes furnish the most brilliant and most delicate shades and colors, but they vanish when exposed to the sunlight almost as soon as the paint has dried. Few conscientious architects specify these for good work. They are used in some cheap pants intended to catch the eye, but in a very short time the light tints have darkened and the darker shades have faded or altered. The only durable, unfading dark pigments are the several lamp, gas and bone blacks, and the only suitable white pigments are white lead and oxide of zinc. With these latter marble dust, whiting, silica and other adulterants are often mixed in considerable proportions, thus destroying the quality of the paint. The iron oxides form the most durable of red pigments, but beautiful aniline dyes are often mixed with them. The dyes fade quickly and the color scheme is lost. Of the yellow pigments the ochres are more durable than the chromes, but the latter are brighter. The Prussian blues and ultramarines are not very permanent unless combined with oxide of zinc. The green shades are generally produced by combinations of Prussian blue and chrome yellow mixed with such inert pigments as barytes, and they hold their colors moderately well when mixed with sufficient oxide of zinc. The mineral browns of umber and sienna are very durable.

It is possible to secure a good color scheme with these durable pigments, but brilliancy of effect generally means quick fading. Our natural love for rich, delicate tints deceives us into accepting a color scheme which can have no permanency. The new house built for speculative purposes to catch the unwary is frequently bedecked with rich colors that fascinate the eye, but like many other features of such cheap houses the outside appearance of beauty is barely skin-deep. Paint can cover a multitude of sins.

The cost of painting is always a question which seriously concerns the householder. It is a charge against the property, which, like insurance, taxes and general repairs, should be apportioned in advance over a series of years.

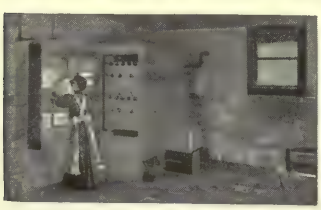
Paint Peels From House.

An Illinois subscriber writes to ask for information concerning some houses his firm own, and the trouble consists in the peeling of the old paint, which is in pretty fair condition, under the freshly applied paint. Is the fault due to the fresh or to the old paint? Undoubtedly it is due to the old paint, which has failed to adhere perfectly to the wood. This may be due to the condition of the wood at the time of priming, it may have been damp. Or the priming may have been done with cheap ochre. The new paint may or may not be good, for that would be immaterial as regards the result, the paint softening up the under coats and causing it to peel, and this action may occur just as well with inferior as with good paint. Also, it is well known that a paint containing mineral oil will fail to adhere as well as pure linseed oil paint, and moreover it will certainly peel under a linseed oil paint; that is, the fresh paint will peel from the mineral oil paint. Where such peeling occurs the only thing to do is to burn off the paint and repaint anew.

Making Red Lead Paint.

Red lead paint may be made by thinning 25 pounds of dry red lead with one gallon of raw linseed oil, mixing thoroughly and straining. To hasten the drying add a gill of good japan driers. This will make 1½ gallons of paint.

NO DELAY TO GET THE CLOTHES DRY ON WASH DAY



When using the *"CHICAGO-FRANCIS" Combined Clothes Dryer and Laundry Stove.* Clothes are dried without extra expense, as the waste heat from the laundry stove dries the clothes. Can furnish stove suitable for burning wood, coal or gas. Dries the clothes as perfectly as sunshine Especially adapted for use in Residences, Apartment Buildings and institutions. All Dryers are built to order in various sizes and can be made to fit almost any laundry room. Write today for descriptive circular and our handsomely illustrated No. K 12 catalog. Address nearest office.

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The Materials put into this Roofing are the Best that can be obtained, and it is made by Skilled Labor with all Modern Machinery, which gives it Wearing Qualities that are found only in the Highest Priced Roofings.

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"THE HOUSE BEAUTIFUL" is an illustrated monthly magazine, which gives you the ideas of experts on every feature of making the home, its appointments and surroundings beautiful.

It is invaluable for either mansion or cottage. It shows how taste will go farther than money. Its teachings have saved costly furnishings from being vulgar—on the other hand, thousands of inexpensive houses are exquisite examples of refined taste, as a result of its advice. It presents this information interestingly and in a plain, practical way. Everything is illustrated: frequently in sepia and colors.

"The House Beautiful" is a magazine which no woman interested in the beauty of her home can afford to be without. It is full of suggestions for house building, house decorating and furnishing, and is equally valuable for people of large or small income.

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A "House Beautiful" illustration

Our readers say the magazine is worth more than its subscription price, $3.00. But to have you test its value, for $1.00 we will mail you *free*, "The House Beautiful" Portfolio of Interior Decoration and Furnishing with a five months' trial subscription. The Portfolio is a collection of color plates, picturing and describing rooms in which good taste rather than lavish outlay has produced charming effects. The Portfolio alone is a prize, money can not ordinarily purchase. Enclose $1.00 with coupon filled out and send to

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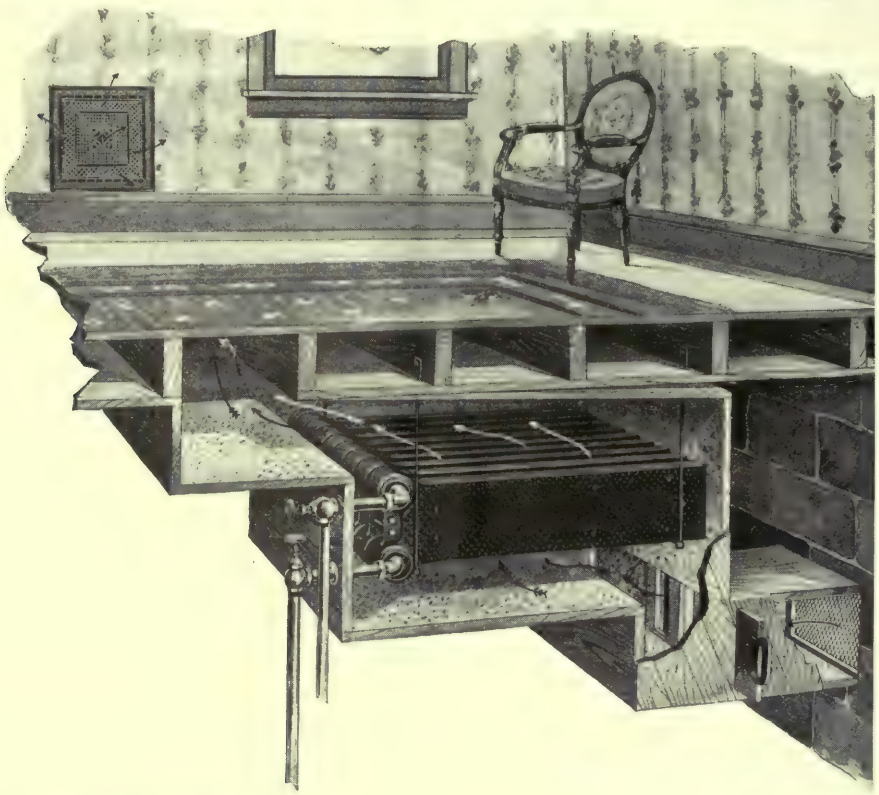
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HEATING AND PLUMBING



Courtesy of the Kewanee Boiler Co.

The Fresh Air Indirect Radiator

One Method of Installation.—Connected for a Two-Pipe Steam System

THE box inclosing the radiator should be made of well-seasoned matched lumber, lined with asbestos and bright tin. The sides of the box should almost touch the ends and sides of the radiator, so that the cold air coming in through the duct will find its way up between the sections of the radiator, and not around the ends or sides.

The cold air duct is provided with a slide, so that the air may be shut off when it is not wanted, or when the radiator is turned off. The radiator should be so hung in the box that the space above it is about one-third more than the space below; this provides for the expansion of the air after it has been warmed by contact with the radiator.

12 Lbs. Pure Zinc to the Cwt. Make "Mifco" Nails Indestructible



The term "galvanized" is under suspicion.

Users of nails are fast finding out that "galvanized" nails and thinly coated nails quickly rust and are destroyed when used in exposed work.

Roofs must be rebuilt, fences and gates replaced in a very few years because the nails rust and break off. Even porch floors and clapboarding often last only half as long as they should, all on account of defective nails. Hence Architects, farmers and builders will be interested in

M. I. F. Co. Heavy Zinc Coated Nails

Know that every hundredweight of "Mifco" iron cut nails carries 10 to 12 pounds of pure zinc coating.

This heavy coating makes them as indestructible as solid copper nails, but they cost only one-third as much.

Time, moisture, even salt air, will not affect them.

We have house owners' stories telling of these nails holding on roofs for 29 years. The shingles were rotted by age, yet the nails showed no sign of rust. They were as good as new.

You can double the life of all your exposed woodwork and slatework by using these indestructible nails. It is economy to use them.

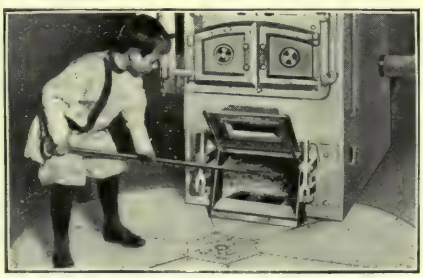
Get them at your hardware dealer's, but remember the initials M. I. F. Co. on the head of each keg.

No other nails will last like these. No other nails in America carry 10 to 12 pounds of zinc to the hundredweight. Please remember this.

If your dealer isn't supplied we'll send you the name of one who is. Just your name and address mailed to us brings this information. Don't drive another nail till you get it.

MALLEABLE IRON FITTINGS CO. - - Branford, Conn.

LOOK AT THIS PICTURE!



All the drudgery, dust, disorder, inconvenience and labor of removing ashes and garbage is saved by the

SHARP

Rotary Ash Receiving System

Do away with boxes and barrels. All waste material not easily burned is held with the ashes in strong galvanized iron cans contained in a fireproof vault. Cans revolve easily as filled. Ashes fall naturally away from grates. Saves grates, improves the draft and holds accumulation of 6 to 10 weeks. Use one can for garbage.

Holds 6 to 10 weeks ashes removal of which is no effort.



Approved by Health Officers, Architects and Heating Contractors. Easy to install even if heater is already in. Better investigate before you complete your building plans.

Write for free catalog, and read opinions of others. Dealers and Architects names appreciated.

The W. M. SHARP CO.
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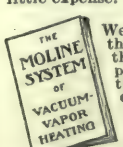
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For years we studied the heating problem in all its angles. We experimented—tested every known means of heating—discovered the faults of ordinary methods. The outcome is the most *perfect* heating system ever invented—the

MOLINE SYSTEM
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We have a book that tells all about the Moline System, and shows why the MOLINE is best of all. Every prospective builder should have this book. Write today for a FREE COPY.

Moline Vacuum-Vapor Heating Co.
Dept. C, Moline, Illinois.



Radiation.

There are many situations in a house requiring special radiators and manufacturers are meeting the demand with a very complete line.

Radiators may be attached to the wall or rest upon the floor and are made in various heights to fit under windows to better advantage.

If it is desirable to turn a corner special sections make it possible. Plate warmers are provided for dining room, pantries, etc., and fresh air may be introduced by a special duct leading to the base of the radiator controlled by a damper.

A very instructive catalogue is that of the Kewanee Boiler Company, Kewanee, Ill.

Heating Boilers.

This subject is thoroughly taken up in the catalogue of the McCrum-Howell Co., Chicago, together with various types of radiators. The little talk on chimneys is very good and the home-builder may get some ideas which will be of service in the construction of his new house.



DO YOU WANT THE BEST?

Royal Round Hot Water Heater.

Royal Sectional Steam and Water Heaters.

MANUFACTURED BY

Hart & Crouse Co.

Utica, N. Y.

80 LAKE ST., CHICAGO

HEATING NOTES.

Furnace casings are ordinarily made of steel, cast iron, tile, concrete or brick. Many people prefer steel to cast iron, because it absorbs heat rapidly.

There has been no system of heating devised as yet by which the part of the room that is not used by its occupants is not always made the warmest and is not always the first to be heated.

Most heating experts favor obtaining cold air for furances from the house interior rather than from out-of-doors The objection made to the former system is that the air of the house is heated over and over again and that the ventilation is bad. One good fireplace on the first floor of the residence will, however, generally overcome this difficulty. The real problem is to carry off the bad air rather than to bring fresh air from outside. If there is no fireplace in the house, some other provision should be made for carrying foul air away.

Furnaces that throw off too much heat in the cellar and send too little heat upstairs, can often be induced to reverse this plan if the capacity of the cold air pipe is increased. Sometimes the loss of the heat in the basement is due to the fact that the furnace or the warm air pipes are not covered with asbestos plaster or asbestos paper.

The door of a furnace through which coal is placed on the fire is called the feed door. Some people believe that this door can be kept open and that the furnace may be checked thereby, just as it is when the smoke pipe check is opened. This idea is a mistaken one. A fire may sometimes be kept for a long period in this manner, but all that the operator saves is the trouble of rebuilding the fire later. His furnace does not work at all during this "open door" period, because cold air is constantly pouring into the opening, rushing to the top of the furnace and cooling it off.

If cold air is discovered to be going down registers out of which hot air should be coming, it may usually be taken for granted that the cold air box is too small or that the damper in the cold air pipe is turned so that it is checking the supply.—Beautiful Homes.

$38.95 BUYS THIS COMPLETE BATHROOM OUTFIT



MODERN BATHROOM FOR EVERY HOME

The Luxuries of Modern Plumbing
At Half the Ordinary Cost.

Complete Pneumatic Water Supply Systems from $42 upwards.



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IN Keith's home town are several beautiful lakes, situated in the heart of the residence district. On the occasion of the linking of two of the more important lakes this celebration is to take place from July 2 to 8. Each day is to have a special program, and speaking of the events the "Improvement Gazetteer," the official organ of the Associated Improvement Associations says: Several of the features are in themselves of sufficient scope to be undertakings which singly would be considered big affairs. There is an industrial parade which will reflect the commercial and business enterprise of the Northwest; a historic pageant undertaken on a more elaborate scale than ever before in any city in the country, a water fete in which is proposed to carefully reproduce in nearly full size such ancient craft as the ship of Columbus, the Mayflower, Cleopatra's barge, a Greek galley, Roman trireme, etc. The entire national guard of the state is to be mobilized for two days and is to appear in a mammoth military parade on the Fourth of July. There are incidental features such as a parade of uniformed fraternal marching bodies, an automobile floral parade, childrens' float parade and demonstration in which twenty-five thousand school children appear. There are to be aquatic as well as overhead fireworks, and aquatic as well as land sports, music by twenty bands including concerts by the famous Innes orchestral band of New York, prize military drills, a band tournament and lots of amusements including a circus and menagerie. Of the city itself, every vacant lot is to become a flower and vegetable garden and prizes are offered. Each district is under a special supervisor and the advice of an expert gardener is at the disposal of all.

Civic Beauty.

Each year this idea seems to be more firmly grounded and communities are devising ways and means to further the work. It is a movement that should have the support of everyone, the home owner most of all. Sentiment and business go hand in hand in this for not only is it desirable to live in pleasant surroundings but the value of everyone's property is enhanced.

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The Grading of Lumber.

This is a subject which interests every prospective home-builder. Certain classifications have been made by the manufacturers and rules adopted governing them. In the booklet of the Northern Pine Manufacturers every phase of lumber production is gone into and it is explained just what each grade calls for and the numerous subdivisions. Examples are given to make it clear to all.

In building a house one should know what quality of lumber is to go into it. It is a waste of money to use the best grade for places where a cheaper would do as well and poor economy to use what is not good enough. Once the proper thing is specified one should know enough to be sure it goes in.

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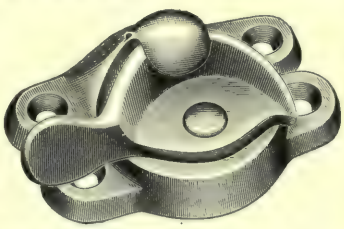
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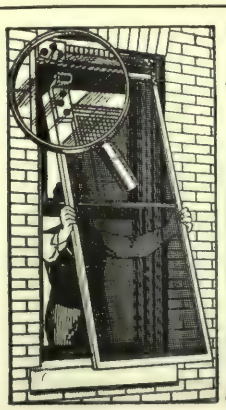
Length	2¼" strip to 1½" face	2¾" strip to 2" face	3" strips to 2¼" face	4" strips to 3¼" face
2	2 25	2 75	3	4
2½	2 81	3 44	3 75	5
3	3 38	4 12	4 5	6
3½	3 94	4 81	5 25	7
4	4 5	5 50	6	8
4½	5 06	6 19	6 75	9
5	5 63	6 88	7 5	10
5½	6 19	7 56	8 85	11
6	6 75	8 25	9	12
6½	7 31	8 94	9 75	13
7	7 88	9 62	10 5	14
7½	8 44	10 31	11 25	15
8	9	11	12	16
8½	9 56	11 69	12 75	17
9	10 13	12 37	13 5	18
9½	10 69	13 06	14 25	19
10	11 25	13 75	15	20
10½	11 81	14 44	15 75	21
11	12 38	15 13	16 5	22
11½	12 94	15 81	17 25	23
12	13 5	16 50	18	24
12½	14 06	17 19	18 75	25
13	14 63	17 88	19 5	26
13½	15 19	18 56	20 25	27
14	15 75	19 25	21	28
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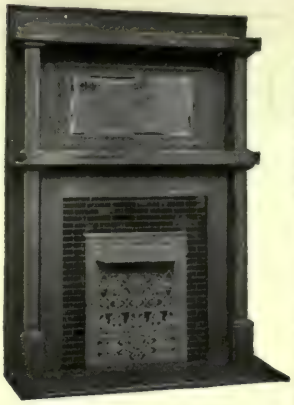
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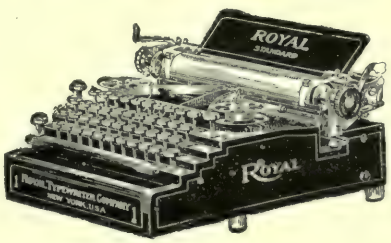
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The H. K. Fly Co., Publishers, New York. Price $1.50.

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By Harris Dickson.

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This is in no sense a love story and is therefore a refreshing change after the steady diet which is with us always.

Let us have more negro stories like this and a better feeling will exist.

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A CORNER OF THE HOUSE SHOWING PERGOLA AND OVERHANGING OAK TREE —Lester S. Moore, Architect

KEITH'S MAGAZINE

VOL. XXVI AUGUST, 1911 No. 2



THE HOUSE SEEN FROM THE ROAD

A House of the Early California Type

By EDITH EVERETT

SOUTHERN California is proud of its old Spanish Missions. It is also proud of its houses that are built after the plan of the Old Missions in what is called the Early California or Mexican style. The "adobe" or literally plaster on adobe, houses—built with the open "patio" or court are particularly fitted to the sunny southern climate.

Just beyond Alhambra in the little town of San Marino—which is only a few minutes ride from Los Angeles—is a beautiful home of this particular type. It stands near the palatial residence of Huntington, one of California's most expensive residences. But while many visitors view the great mansion of the noted financier, the little "adobe" house attracts those who love the novel and the beautiful combined in perfect taste and simplicity.

On approaching the low plaster house, the heavy pillared porch and the broad, deep windows, are first noted. At the sides and back of the house grow great live oaks. The well-kept lawn and artistic flower-beds tell of an owner who values surroundings rightly.

The house faces east and at the left is a pergola covered with vines and shaded by a monstrous live oak. The front view of the house shows the location of the pergola and gives some idea of its surroundings and beauty. But it is even more attractive from a close view, as the



THE MISSION LIVING ROOM IN EXCELLENT TASTE

second picture shows. Here is one of the most perfect nooks in all California. Vines twine over the pergola. Here the brilliant purple bougainvillaea blooms. Flowers bank the side of the house and vines climb to the low roof. The floor of the pergola is cement, five steps lead to it. The frame work is redwood. A French door opens from the room within. The gigantic California live oak stands so near that its huge branches form a perfect shade for this charming open porch.

What fault can the most critical find—be he artist or nature lover? Can one picture a corner more delightful than this? Just the place for a sun bath in the morning; just the coolest spot for a rocker and a good book on a summer afternoon.

So often do houses that promise much from front view disappoint when seen from the rear, but here is a case where the vine clad house, pleasing from the front and side, is after all most pleasing when viewed from the rear. Here is the real open "patio," that is such an essential part of the low Spanish house. Enclosed by the house on three sides, the fourth has a low, stone parapet. Two steps at one side lead into the slightly raised court. Well apart, adorned with vines and flowers, this open court in the center of which stands a large banana three, appeals to one's idea of fitness. In fact the scene is so perfect that it suggests the enchanted palace, where beauty and contentment reign. The light adobe walls, the dark green vines, the cool, in-

viting court attract the visitor so that he is loath to leave the "patio" even to enter the house itself.

And yet, after all, the interior carries out most fully the promise of the exterior; for each of the seven rooms of this $5,000 house is perfect in its way.

The owner has traveled much in Mexico and has been interested in the Indians of the West, so he has collected many rare Indian and Mexican relics.



THE DINING ROOM SHOWING SIDEBOARD, TABLE AND PANELED WAINSCOT

True to the idea of the house, the great living room is decorated with rare rugs, expensive baskets, and odd pottery. This room is **the** room of the house. It is 17 by 27 feet. The hardwood floor shows off well the handsome Navajos and great tawny skins. The ceiling is heavily beamed and has light plaster panels. There is a large tiled fireplace. The furniture, in accord with the scheme of the room is plain, dark Mission. The walls have high, dark wainscoting, and a narrow shelf extends around the room at the top of the wainscoting. The low windows on either side of the fireplace have broad window-seats. In short, this large living room with its bright rugs, and plain furniture, its dark beams and large windows, is a triumph of architectural skill.

Another interesting room is the dining room. It has also the high paneling of redwood. Its floors are highly polished. The plain built-in sideboard, and the severely simple furnishings are restful. The ceiling, like that of the living room, is heavily beamed. The severe simplicity

of the dining room, combined with an air of cheer and comfort, are its chief charms.

But then the bed rooms and kitchen even carry out the same idea of rich simplicity shown in living room and dining room. The furniture suits the low "adobe" house. It is in no part over furnished and all bears the test of use and fitness.

The house has furnace heat and electric lights. In fact, every modern convenience is here. Many of the windows are of the casement variety, so that from them one can step into the "patio." They seem especially suited to this one-story house.

Comparing this little home, so charming in every detail, so perfectly modeled and so artistically furnished, with the imperfect many, the question comes, why can not more people learn to build and furnish simple houses that are pleasing, as well as comfortable.



VIEW LOOKING INTO PATIO

Construction Details of the Home

Cased and Columned Openings.—Design and Effectiveness

By H. EDWARD WALKER

(Continued from previous number)

THE term cased opening refers more particularly to wide openings between rooms, but actually every door or window is a cased opening. In a well designed house the tops of all doors, windows and wide openings are kept upon the same horizontal line and the finish will be the same design for all in a given room if not throughout the story. This is a general statement as to the finish applying to very important work and must be allowed some latitude in a house of ordinary cost.

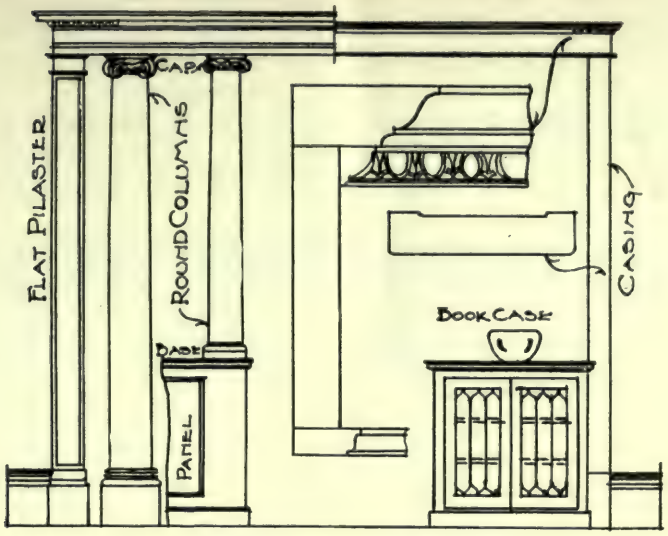


Fig. 1.—VARIOUS TREATMENTS OF THE CASED OPENING WITH DETAILS OF TRIM

There is no reason, however, why the heights should not be kept, because an even width of frieze is then obtained, making the decorative scheme much more effective.

Small windows in single sash, leaded effects, may be placed without regard to the above rule, provided they cannot readily be so placed, but should never be put high enough to cut into the frieze.

Figue 1 shows several methods of treating a wide opening such as might occur between hall and living room or living room and dining room. On the right is a simple casing with an entablature effect for the cap and a plain plinth and base mould, at the floor. This would make a dignified and effective trim for all the doors and windows.

A book case is shown in connection, which is 30 inches high, the most that it ought to be when placed in an opening 7 feet high. The doors contain leaded glass and the back, facing the adjoining room, is paneled.

At the left is shown a flat pilaster with a paneled face and simple cap and base. The cornice above is similar to that at the left but a little heavier, with an additional plain piece of board just above the opening. This gives extra height and brings it into proportion with the pilaster, which is wider than the casing described. This would be very effective, but it would be more ornamental by the addition of the round column shown adjacent to the pilaster. The base is shown in line with the base of the room and in good proportion. The cap in this case is known as Ionic, but could be Corinthian, Composite, Doric or Tuscan in design.

These names refer to the five orders of architecture and, properly speaking, only the cornices and other portions belonging to a given order, should be used with its column, but it is customary to disregard some of the least important of these details, in the moderate cost house. In a costly house these matters should be absolutely correct.

The caps of the columns may be carved in wood, but composition in beautiful modellings is now obtainable that can be finished to represent any of the well-known woods and is in universal use.

A smaller column is shown supported by a paneled pedestal which is continued

to the pilaster, forming a shelf that will hold a vase or potted plant. Note that the panel does not extend under the column. The plain surface is in much better taste. The space occupied by panels could be arranged for books with good effect. The pedestal will be best if kept not over 30 inches high.

Sections at larger scale of casing and cap are shown.

Figue 2 shows half elevations of a five-panel door and an ordinary two-part window, with trim of a different character from that in the previous figure. This would be very appropriate for a Colonial house.

Two sections are shown at larger scale that would give much the same appearance. These are of stock design and could be obtained anywhere or something very close to them.

As cap moulds, such as would be required for a chair rail or wainscoting, they would be excellent.

Two styles of base are shown, one of two members and one of three members. The little mould at the floor was originally devised to be nailed to the floor, independent of the base board. This allowed the floor to settle without leaving an exposed crack under the base, but carpenters everywhere nail the mould to the base thus defeating the object for which it was devised.

Window stools are shown in two stock patterns and are made in more than one size to accommodate frames of different widths.

The apron or mould used just beneath it may be of various patterns but is often made of same detail as the upper portion of the base mould, depending upon the style in which the room is carried out, if in any.

The picture mould shown is a very simple stock design. Ordinarily the mould is so small that its position is of more importance than its contour. With a drop ceiling effect its place is properly at the junction of the two papers below the frieze. In chambers and similar rooms where the wall paper is continued in one pattern from floor to ceiling, it goes very properly in the angle between wall and ceiling. These rooms are usually on the second floor, with lower ceilings and this position of the picture mould tends to make the ceiling look higher.

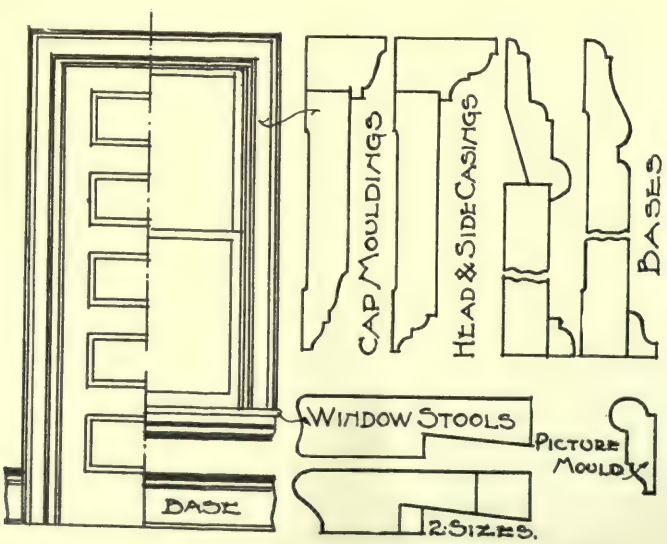


Fig. 2.—HALF ELEVATION OF DOOR AND WINDOW WITH DETAILS OF TRIM

Fornordisk Embroidery

Tapestry Effects on Canvas After Old World Methods

By BESSIE BERRY BRABOWSKII



Fig. 2.—PILLOW TOP OF SOFT WHITE CANVAS DONE IN PALE YELLOW PRIMROSES AND DULL GREEN BORDER

FORNORDISK means, from "Norden," this being a work of Denmark, Norway and Sweden. It is a species of tapestry almost more than embroidery, though I have termed it embroidery because the design is really embroidered on the canvas in tapestry effects. It is done with the weave of the goods and by counting the stitches as well as the threads of the background. This does not mean that it is by any means a difficult work any more than cross stitch, in fact, not as much so, as the stitches are simply over and over in straight lines. This work is done principally by the "Sjielland" peasants of Denmark. The lambrequin or dado for couch (either that may be preferred) shown in Figure 4, represents a festival or May dance of the Danish peasants; the costumes are brought out in characteristic design and colorings. They are dressed in their festival costumes of lacquered shoes, heavy woolen skirts and velvet jackets, with soft muslin undervests or "gamps" done in the Danish National Hedebo embroidery, and sometimes the Hardanger is used, which is a native embroidery of Norway. In the original embroidery the canvas is hand woven of soft wools and dyed in beautiful shades and the wools are used to embroider with. This canvas can be bought now in strips and the wools be used for embroidery. This figure is not shown with an eye to copying unless one knew something of the color of these costumes—the stitch would be easy to



Fig. 4.—SHOWING A MAY DANCE UNDER THE BÖRG" TREES OF DENMARK

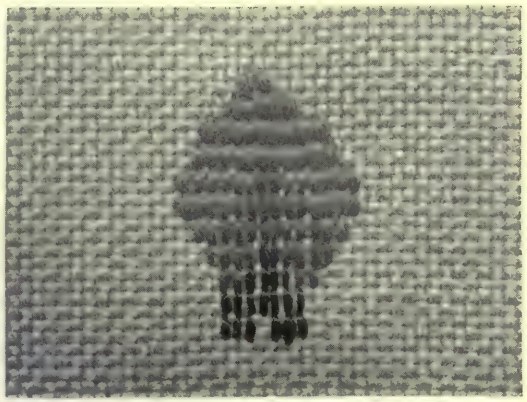


Fig. 1.—Showing the Exact Working of the Stitches in Fornordisk Embroidery

EXAMPLES OF FORNORDISK EMBROIDERY

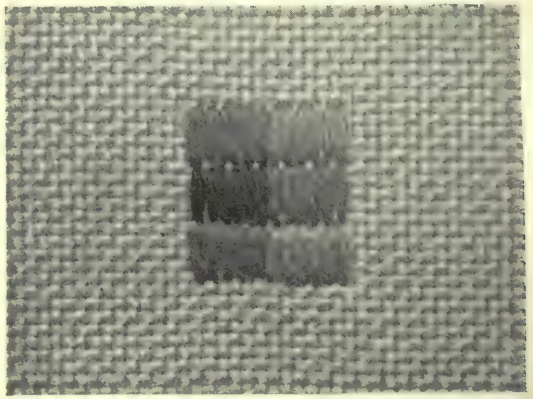
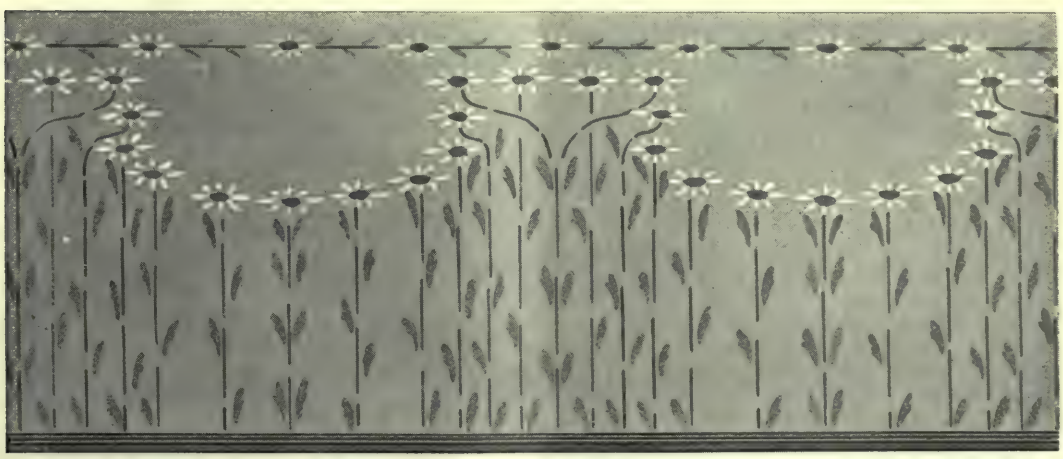


Fig. 3.—This Stitch Is Commonly Known to Tapestry Workers as the Gobelin Stitch

work and to count from this illustration by using a magnifying glass, but in this work, as in all cross-stitch and canvas work, a picture in colors must be used as design, and it would be impossible to give you the exact colorings of this in the numerous shades used, by text.

In Figures 1 and 3 the exact stitch is shown magnified, and any cross stitch picture may be carried out in this same stitch, making it "Fornordisk." The illustration, Figure 2, is a pillow top on cream white canvas; the flowers are pale yellow primroses carried out in wools and silks combined, while the leaves are delicate sage green shaded into deeper shades. The outer border is a very pale and dark olive, giving the waved effect; this is most simple of execution. Little more needs to be said regarding this embroidery. The design, Figure 4, as I before stated, is a May dance under the "Börg" trees of Denmark, beneath one of which sits a quaint little man playing the accordion, and there is an odd little verse which goes with it which means that, "at Whitsuntide, when the forest is green, every peasant lad must take his sweetheart for a merry dance in the woods, winding in and out among the trees—for this is the custom of this country." It shows much of the poetry and art which these people of the midnight sun weave, not only into their lives, but their work.

Just at this place it might be well to add a few words regarding the proper needles to use for this embroidery and the finer French embroidery. When working on canvas or any heavy material in which the threads are coarse and easily picked up, there is a special needle with a long eye and a blunt point which is adapted to just this kind of work. Never use a needle with a small eye; an eye large enough to allow the thread or silk to slip through easily will prevent the silk getting rough and knotting. The crewel or "long-eyed" needle comes in twelve sizes and is used by all the best needle-workers. For ready stamped linens use No. 8 or No. 9. By using care in the selection of the colors and designs, many pleasing combinations may be obtained.



SUGGESTED DESIGN FOR FORNORDISK EMBROIDERY

Preparing the Flower Garden for Fall

By TARKINGTON BAKER

(Author of Little Yards and Small Gardens, etc.)

SUCCESS with peonies depends on three things: Selection of varieties, September planting and thorough preparation of the soil. The last means August work, for the gardener who plants his peony roots in September in beds or borders freshly made will very probably have cause to regret his procrastination. A deep, rich soil is essential for success with peonies and with this soil, unless it has been previously manured, thoroughly rotted manure must be incorporated. The earth must be spaded to a depth of two feet, broken and pulverized, and the fertilizer must be as completely incorporated with the lowest soil as with that of the surface. There is only one way by which this can be successfully accomplished — remove the soil for a depth of two feet, throwing it to one side where it can be pulverized and the manure mixed with it, and, this accomplished, replace it in the excavation.

This is no easy task, to be sure, but it means thoroughness and the peonies will amply repay the gardener for the extra work involved. It provides, too, a sure means for removing rocks, or similar obstructions, poor soil, clay or gravel, and it exposes the bottom of the bed so that it can be readily seen whether extra drainage is necessary or not. It permits the addition of extra quantities of manure with the lowest layer of soil when it is thrown back into the excavation, and, more than all else, it insures ease in future cultivation. Peonies planted in such beds may remain undisturbed for years, and when a plant prefers, when once set out, to be left alone and thrives year after year without replanting or division — conspicuous characteristics of the peony—it pays in the long run to be thorough in the beginning.

There is only one thing I would emphasize — be sure the manure is old. Fresh manure — and by that I mean manure that is less than six months old — is almost sure to prove disastrous. Be liberal with the fertilizer, especially in mixing it with the soil at the bottom.

When a bed is so prepared, it can be readily foreseen that it will "settle" to a considerable extent. I need hardly add that it is better for this "settling" to take place before the peony roots are planted rather than after they are set out. Therefore the advisability, if not the necessity, for undertaking the preparation of peony beds in August. The roots must be set out in September and the earlier in that month the better.

If quick results are wanted—and the purse is long — purchase "undivided clumps." Single roots, however, are much cheaper and, in a season or two, make a very satisfactory display. In ordering the roots, do not be insistent on a large number of "eyes," for very often the purchaser in designating that the roots to be shipped him are to show no fewer than three "eyes" obtains what he specifies at the expense of vigor and quality.

The following list contains many of the best peonies, but it must be borne in mind that peony nomenclature is sadly mixed at present and that, save with the leading varieties, very little dependence can be placed upon the names:

Popular Garden Blossoms



Speedwell
Single Peony

Hibiscus "Crimson Eye"

Madonna Lily
Single Peony

Spanish and English Iris
Double Peony

Japanese Tree or Mountain Peony

Achille, delicate pink.

Agida, rosy violet.

Amazone, creamy white, yellowish center.

Auguste Lemonier, deep, dark red.

Baroness Schroeder, delicate pink, touched with gold in center.

Carnea Flora Plena, pink, carmine center.

Caroline Mather, purple-crimson.

Duchesse de Nemours, rose-pink.

Festiva maxima, creamy white, the best white.

Floral Treasure, pink, fragrant, one of the best.

Golden Harvest, outer petals pink, inner golden.

Golden Wedding, the only pure yellow.

Humei, rose.

La Fiance, creamy white, yellowish center.

Nigra, dark crimson.

Richardson's Rubra Superba, crimson.

Victoria Tricolor, pink, sulphur and flesh.

Many planters desire varieties that serve not only a decorative purpose but which are useful as cut flowers as well. The following list contains the best for this dual purpose:

White—Festiva Maxima, Queen Victoria, M. Dupont, Couronne d'Or, Madame Crousse, La Tulipe, Madame de Verneville, Marie Lemoine, Duchesse de Nemours.

Pink—Beauty Francaise, Delicatissima, Livingstone, Princess Beatrice, M. Jules Eli, Edulis Superba, Alexandria.

Red—Adolph Rosseau, Souvenir de l'Exposition Universelle, Modeste Guerin, Delachei, Marechal de MacMahon, M. Krelage, Richardson's Rubra Superba, Felix Crousse.

I would never set out a group of five or six peonies without including in the number a Moutan or Tree Peony, as it is commonly called. These are splendid plants when in bloom—the flowers precede the herbaceous kind—and their cultivation is not at all difficult. Care must be taken to prevent "suckering," for the shrubs are generally grafted on herbaceous roots, and in the early spring some provision should be made to protect the early formed buds from the last frosts. I accomplish this by sinking heavy wire stakes in the ground beside each plant and in late spring, when frosts or freezes threaten, hang a piece of sacking on this stake, enfolding the plant in the mantle and fastening it with pins or nails. The Moutan peonies attain a height of four or five feet and produce single flowers that measure ten inches in diameter. The colors are white, pink, carmine, rose, cream and blush.

An important thing to do in August is to prepare the soil for the indoor winter window garden. September begins the fall planting, and, from the first of the month until the first cold weather, the gardener is usually fully occupied with important duties that do not permit of delay. What can be done in August, therefore, should not be postponed. And nothing is more important for success in winter than a good supply of soil, in boxes or barrels under cover, ready for immediate use. There is a great deal of nonsense written about "potting" soils, and the amateur is likely to become confused when he reads such matter. If he supplies himself, however, with the following composts, he can be fairly sure of good results:

1. Fibrous loam, three parts.
   Leaf-mold, one part.
   Well decayed manure, one part.
   Clean, sharp sand, one-fourth part.
2. Fibrous loam, one part.
   Peat, two parts.
   Leaf-mold, two parts.
   Sand, one-fourth part.

These are general utility mixtures — the first for flowering plants and the second for foliage plants, especially ferns. Should it be difficult to obtain peat for the second compost, increase the leaf-mold one part more and omit the peat.

Bermuda lily bulbs, if bloom is wanted for the holidays, should be purchased and potted in August. Also sow the seed of primroses, cinerarias and calceolarias this month and begin to take cuttings from geraniums and heliotropes growing outdoors to be developed into plants for winter blooming.

Hardy bulbs to be planted in August in beds or borders outdoors are the Madonna lily (Lilium candidum) and the Spanish and English irises (Iris Xiphium and Iris Xiphioides). The Madonna or Annunciation lily, as it is sometimes called, is the best hardy white lily in cultivation. It blooms in June, bearing fragrant, bell-shaped flowers, ten to twenty on a stem, and succeeds very well under ordinary treatment. It must be planted in August because it makes a fall growth. In affording winter protection, be careful to avoid covering this autumn growth too heavily or it will be smothered. Set the bulbs six or eight inches deep, preferably on beds of clean, white sand—a handful in the bottom of each hole—and eighteen inches apart. This lily thrives in any good garden soil of fair depth that has been well dug before planting, and succeeds even when exposed to the full rays of the sun all day long.

The Spanish and English irises, inexpensive bulbs, should be planted in quantities. Few gardeners realize the beauty of these plants. They are of easy culture, thriving best is some sheltered corner of the garden and preferring a loose, friable soil. Their flowers are borne in June and are excellent for vase or table decoration. I make use of the bulbs freely in beds planted with the autumn flowering anemones. The Spanish group is the first to bloom and the English follow in the last week, usually, of June. Set the bulbs three or four inches deep and five or six inches apart. These, like Lilium candidum, make a fall growth and, consequently, demand early planting. Admirers of Irises would do well to add to these two species, Iris reticulata and Iris Bakeriana, both of which demand similar treatment.

Toward the latter part of the month, thin out such perennial seedlings—sown in July—as may require it, and prepare the beds or borders for the reception of such plants as are to be transplanted to permanent quarters this autumn. The seedlings — or most of them—can be transplanted toward the latter part of September.

August is the month in which the asters suffer most from the attacks of black beetles. Watch the plants closely, knocking off the insects as they appear into a pan of kerosene.

August is almost as satisfactory a month for the planting of seed of hardy perennials and biennials as July. Foxgloves and Canterbury bells—the biennial campanulas — give excellent results when planted in August. The common foxglove, sometimes classed in nursery catalogues as a perennial, is Digitalis purpurea. There are perennial varieties of foxglove, but these are less showy than the biennial. However, all are worth growing for the border. There are perennial campanulas, too, and all are valuable, but, as with the foxgloves, catalogues are frequently misleading in classifying Campanula Medium (Canterbury bells) among the perennials. It is a biennial and dies after flowering.



A MODERN DINING ROOM IN WHICH THERE IS NO INDICATION OF A BED

New Ideas in Planning

Saving of Space and Material Made Possible by the Modern Wall Bed

IN laying out a floor plan of the home, it has always been necessary to provide separate rooms as sleeping chambers and this has necessitated making the other rooms smaller or reducing their number, when it was desired to economize space. Sleeping chambers are, of course, an essential part of any dwelling, but when economy of space is the consideration, the trouble heretofore has been that these very bed rooms, although used but a part of the twenty-four hours, occupied much space wanted for other purposes during the daytime.

A solution of the problem is found in the use of folding and rolling beds which are concealed during the day. The use of these beds makes two rooms equivalent to three rooms as ordinarily planned, while three rooms in which these beds are installed are equivalent to five rooms in comfort and convenience. These folding wall beds are full size and as comfortable and desirable in every way as a four-post bed and are installed as a per-



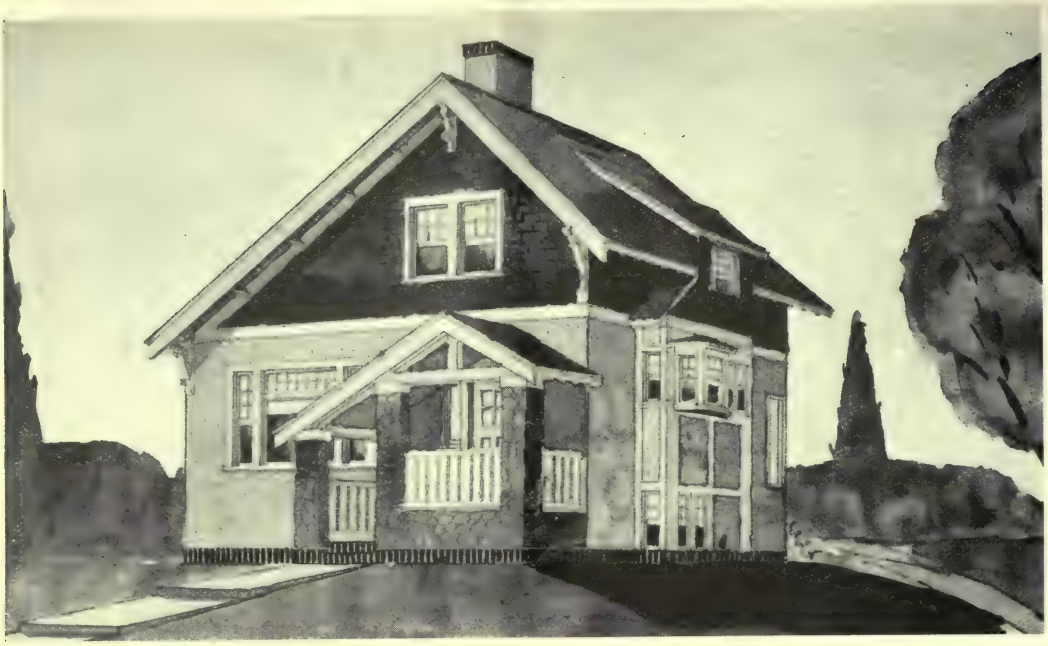
THE SAME ROOM WITH THE BED PULLED FROM BENEATH SIDEBOARD, UPON WHICH NOTHING HAS BEEN DISTURBED

manent part of the dwelling, the plan providing for their concealment during the day making all of the space of the room available for day occupancy.

When it is realized that by the use of these beds it is possible to get the equivalent of a seven-room house into a five-room bungalow or of a nine-room house into seven rooms, the advantages of this form of construction from the dollars and cents standpoint, are at once seen.

The home-builder is beginning to see the advantage of one or more beds of this kind in the house or bungalow. In the first little home that is built, the presence of a guest's chamber may be a luxury entirely beyond the means of the young people, requiring as it does, extra space on the ground which means more foundation, more roof and more materials generally. If a bed can be installed which by day is a handsome seat, a disguised portion of a bookcase or sideboard, in no way interfering with their primary uses, it is a solution of the problem which will meet the approval of a large number of people. It is possible to so install the bed that no one would think it was a bed from its appearance.

It may be that the entertainment of guests is a serious financial drain upon people who are obliged to begin in a small way, yet who wish to be reasonably hospitable. A guest entertained in a room containing a folding or rolling bed would be less likely to mistake the surroundings for a hotel with gratuitous service.



A SMALL COTTAGE WHICH GAINS TWO ROOMS BY THE USE OF WALL AND ROLLING BEDS
—Haley & Johnson, Architects

An elderly couple building a snug little home, the old house having become too burdensome after the departure of the children, would find such an arrangement quite as satisfactory as do the young couple beginning life. Again the house may have grown too small and the width of the lot and general arrangement of the house, makes the addition of a room a difficult problem.

However, the presence of a convenient closet may make an ideal dressing room and the bed itself a handsome addition to the room in which it is installed, solving an originally expensive problem in an inexpensive way.

The first thought that will come to the experienced housekeeper will be the matter of ventilation. The old fashioned folding bed which closed upon itself made no provision for a circulation of fresh air, was very unsanitary and created a prejudice against all such beds, present and to come.

The modern wall bed is not boxed in but is simply placed on end during the day with a wide panel to hold the bed clothes in position. The air circulates all about it just as it does about the ordinary bed and is plainly visible from the closet or dressing room into which it closes.

Where provision is made in the original plans for these beds the architect will provide a window into the dressing room or closet, or a ventilation pipe of proper size which carries off the dead air This may be connected with a warm flue to accelerate the draught through it.

With the rolling bed the proposition is exactly the same except that the bed remains in its natural position at all times, simply rolling back into the space provided and where the air can circulate freely. Above the rolling bed space is located wardrobes, drawers, hat boxes, dress boxes, cupboards, etc., all opening into the dressing room or closet. The bed occupies an area five by six feet six inches, so it will readily be seen that ample space is provided for storage purposes.

This is considerably in excess of the average clothes closet which has seldom half this floor space. It would be quite possible to design the dresser above the bed with a mirror, drawers, etc., and still have space for a large wardrobe at one side.

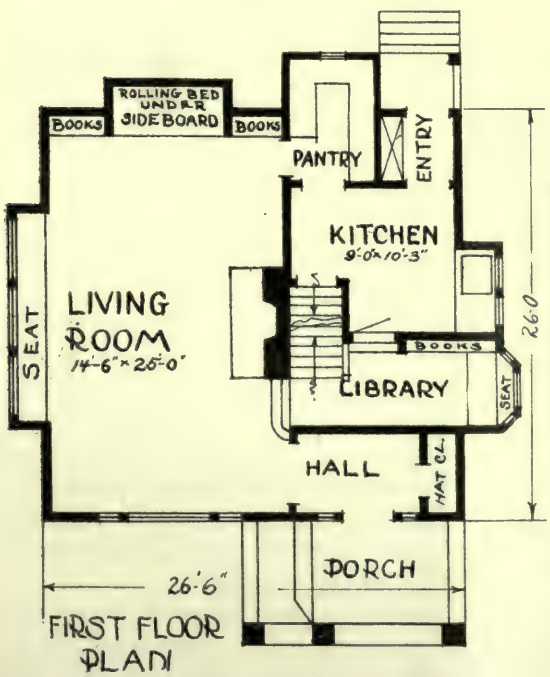
The space above the bed can be utilized in any manner the owner desired, that a clever designer could work out. The dressing room itself need be only large enough for two people to pass each other comfortably and requires very few furnishings in addition to those already mentioned in connection with the bed. Metal, varnished wood and ordinary care will make these beds quite as sanitary as those in the usual form.

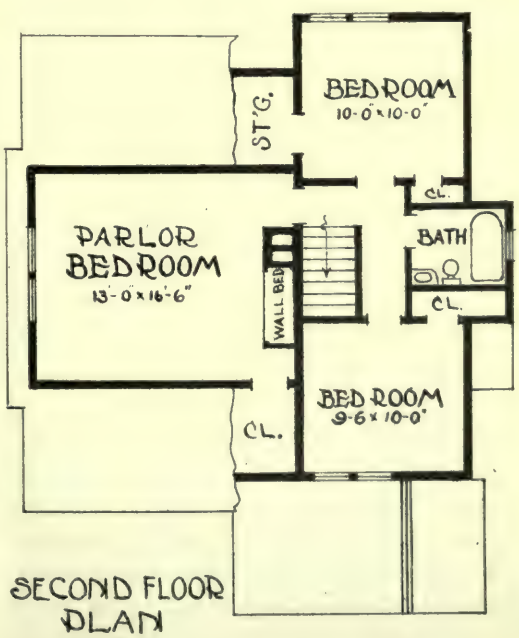
That the home builder may see just how the rooms appear, both in floor plan and perspective when equipped with such beds, we have illustrated here a story and a half bungalow with an attractive porch with stone piers and balustrades.

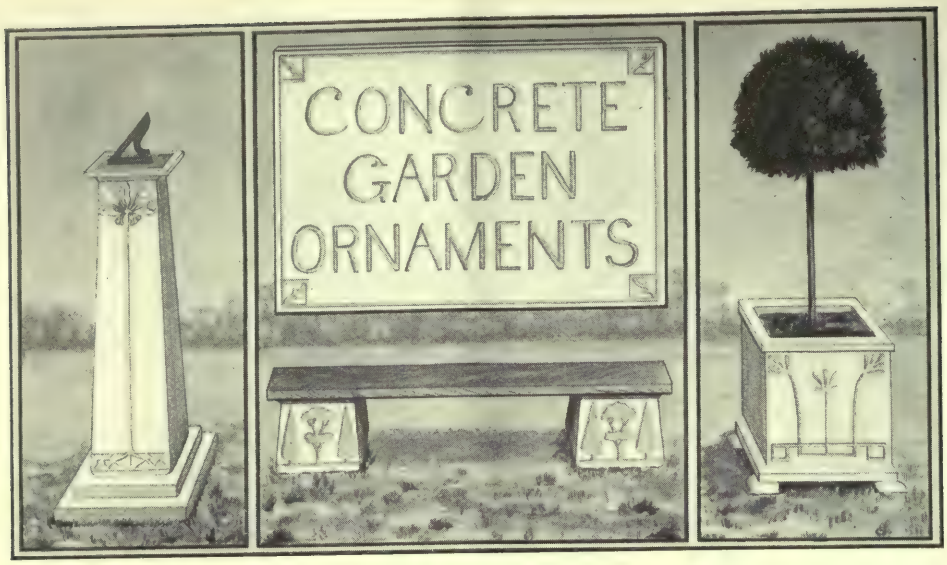
The living room contains a brick faced fireplace and the library is adjacent connected by a large cased opening. At the far end of the living room there is a built-in buffet with a wall rolling bed that rolls out on the floor and affords an extra bed room for emergencies.

The kitchen is well appointed. There are three chambers, one a parlor chamber, equipped with wall bed. There are linen closets and a good bath room. This makes a very roomy and attractive bungalow and would make a pleasing home for an average size lot. It is 26 feet 6 inches wide and 26 feet deep, exclusive of porches. The rooms other than the chambers are suggestively finished in Georgia pine with Georgia pine floors throughout. The chambers are in white enamel.

The height of the story is 9 feet 6 inches on the first floor and 9 feet on second floor. There is a basement under a portion of the house in which will be located a furnace with fuel bins and necessary storage. The cost is estimated at $2,500, as covered by the description, with plumbing and heating complete.



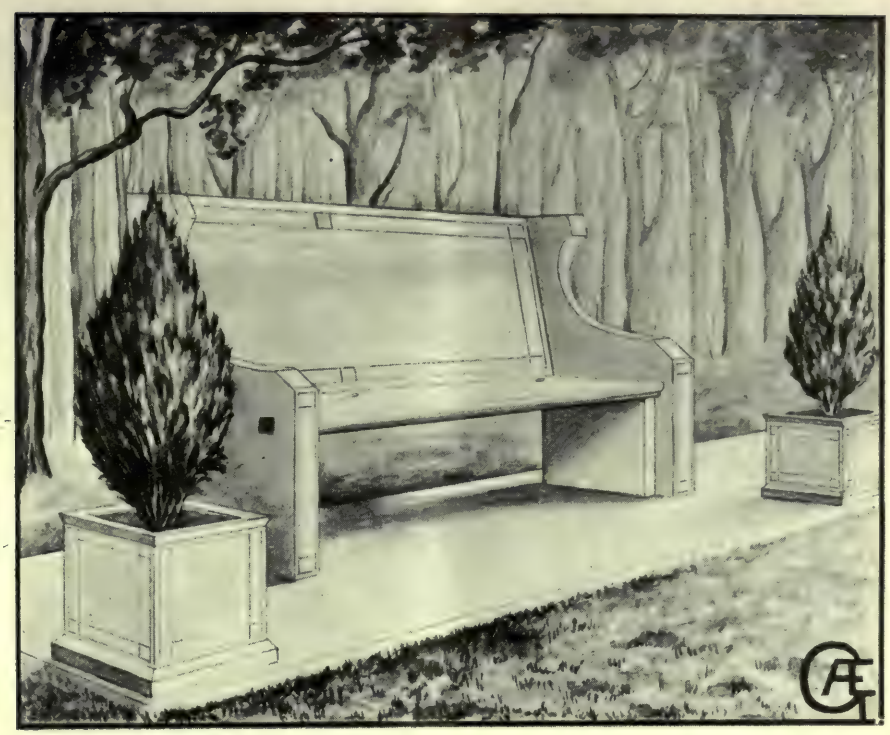




OF the hundred and one uses to which concrete is now being adapted, that of garden ornament is perhaps the most interesting and variable. Its use in this way adds a touch of artistic formality which creates harmony between the garden and the house, especially if the house be of roughcast or cement. Its natural gray shade accords well with the green of lawn and trees, and it makes the glowing colors of flowers even more beautiful. The gray shade can be toned to almost any tint if desired, by the addition of colored pigment, or made almost pure white by adding well slaked white lime to the cement mixture. In fact concrete garden ornaments and furniture have all the artistic value of those of cut stone at a cost that is very small in comparison, especially if the work is undertaken at home.

Any one that is handy at carpentry can make the wooden forms, and if a few precautions are taken in dealing with the cement, suprisingly pleasing result should follow. A wise plan for the beginner at the work would be to make a plain square plant box, and thus get to know by easy stages each part of the work, before attempting more complicated designs. A useful size for the box would be two feet each way, with sides and bottom two inches thick. The outer wooden form is made up of inch pine boards, and has interior dimensions of two feet each way. The boards must be well planed and sandpapered on the inside of the box, as their surface is repeated on the cement. They must also be well oiled to facilitate their withdrawal when the cement is set. An inner form is needed which consists of of a bottomless frame having dimensions two inches smaller each way than the outer form. To the bottom of this frame four wooden blocks are nailed each two inches high. These allow for the cement bottom, and will leave four holes which serve for drainage. Cement work as thin as this requires reinforcement with wire, and the most useful material in this case would be wire poultry netting. It should be bent to form a square that will slip between the inner and outer forms, in such a manner that it will be completely embedded in the middle of the cement.

A suitable cement mixture would be one part cement to three of clean gravelly sand. These must be well mixed to-



A HANDSOME GARDEN SEAT FLANKED BY BAY TREES IN CEMENT BOXES

gether while dry, turning them over several times with a shovel on a watertight platform of boards. The water is then slowly added, a water can with a nose being useful for the purpose, the mixture being well turned over several times until it is of the texture of mortar for bricklaying and will spread easily with a trowel.

The oiled forms being set ready on a level platform of boards, with the aid of a trowel a layer of cement is spread over the bottom and the sides built up by dropping the cement between the inner and outer forms, tamping it down to a solid mass with a flat ended stick, and leveling off finally the top edge with the trowel. In a few hours the inner form can be lifted out, and after an interval of at least twenty-four hours the outer form can be taken away. Any unevenness of texture can now be removed by wetting the cement and carefully rubbing it down with a flat block of wood. The box must remain stationary for about ten days, otherwise there is a danger of cracking it. After that time it can be placed in its permanent position, where age will tend to make it practically indestructible.

A simple garden seat, consisting of two ornamental blocks supporting an oak plank, like the one illustrated, might be the next attempt of the amateur. The design of tree forms which decorates the blocks, is made by cutting out these simple shapes with a scroll saw from wood a quarter of an inch thick, and tacking them on to the outer form. The design will then appear as if incised upon the cement. The use of any surface design will necessitate the form being taken apart, for obviously it cannot be drawn upward as in the case of the simple plain box. By putting it together with screws it can be used any number of times, and

will repay the trouble taken over the design. A pretty setting for the seat would be to place a flower box of the same design as the seat-blocks on either side of it, with a formal shrub in each.

The box illustrated with the standard bay tree, is rather more complicated as there is a molding top and bottom, but a carpenter with average skill should be well able to make the outer form. The surface decoration is made up of simple strips and curved pieces of quarter inch wood. The feet on which the box stands are cast separately, and the box mounted on them when completed.

With success in the foregoing instances, there is no reason why the large garden seat should not be attempted. A spot should be chosen where it will be the main attraction, such as the end of a lawn with shrubbery for a background. The seat is made in four sections, that is a pair of ends, the back and the seat. The ends are constructed to support the seat and back, and the whole is braced together with bolts and nuts, the bolts being cast in the cement. A right and left form must be made for the ends, and it will be noted that the lower part is made amout two inches thicker to form a ledge to support the seat. The upper part is recessed to take the back of the seat, and at this recessed part two bolts are cast in the cement, which pass through holes in the back where it is secured with nuts. The back and seat are made three inches thick and are well reinforced with iron rods a quarter of an inch thick placed six inches apart. In the case of the seat two of the rods should be half inch iron, with a screw cut on their ends, and long enough to pass through the end pieces where nuts and large washers clamp the whole structure together. The seat should have a slight tilt backward, and three holes should be cast in the back part to allow rain water to drain off quickly. As the work can be done in sections it should not prove difficult, and is worth elaborating, as illustrated, by mounting the seat on a cement foundation large enough to accommodate two flower boxes.

The sun-dial shown would form a graceful ornament to any garden, and the best effect would be got by carving the wooden form so that the design stood out in relief. It could either be molded in one piece, which would necessitate carving four panels, or it could be built up of parts made separately. In the latter case the four sides could be made in separate slabs from one form, and then cemented together on the base, filling in the hollow interior with cement to form one solid structure. The actual sundial should be made of bronze, and laid out and engraved to suit the locality.

Other interesting items will doubtless suggest themselves, such as a pergola of slender Ionic columns, which in conjunction with cement flower boxes could be made particularly delightful. Or a small summer house with a broad roof of brown shingles, which with the cement left its natural gray would be suggestive of cool shade. To the amateur carpenter ornamental cement work should open up new fields for ideas, and in the garden it will prove of great artistic value, adding as it does that slight touch of formality which is a link between the architecture of the house and the natural beauty of the garden.

ARTHUR E. GLEED.

Designs for the Home-Builder

Design B 267.

THIS house is of a picturesque type which conserves every inch of room. Set low upon the lot the porch floor seems but a crowning point of the lawn. One may step from porch to lawn at any point, which is a pleasing feature. The large columns seem so adequate to their purpose and the stucco exterior of the first story gives a sense of permanence.

The stained shingles of gable ends and roof are in splendid contrast with the white painted trimmings.

The hall runs entirely through the house with rooms on either side after the colonial manner. Flat white paint enters largely into the color scheme of the interior with the exception of the dining room, which is in English oak, and the kitchen of natural birch.

The plan is worthy of special study and is 35 feet 6 inches by 25 feet 6 inches on the ground, exclusive of projections, the porch being 10 feet.

It is estimated that the house with hot water heat will cost $8,000.

Design B 268.

This bungalow is 34 feet by 52 feet, with hot air heat, cobble stone chimney and fireplace, brown stained rough siding, cream painted trim and green roof. The plan contains three bed rooms, bath, kitchen and the living, and dining rooms have beamed ceilings, parquet floors, buffet with art glass doors and mirror, built-in bookcases and columned openings. Oak, birch and white enamel are contemplated for finish and the architect's estimate of cost is $4,300.

Design B 269.

We have here a rectangular frame house of pleasing architectural appearance. The projecting bay at front and unique entrance porch at side causes one to lose sight of the extreme simplicity of the ground plan. Siding is used up to the second floor level with stained shingles above and painted trim throughout for exterior. This is a house that would lend itself readily to cement stucco for the lower story, or red brick in English bond with deeply raked joints, with stucco for the second story. Half timbers could be introduced by the architect to advantage, if same were desired. The plan is on generous lines of great dignity and very convenient in arrangement. All the principal rooms of first floor are finished in oak with oak floors except the living room, which has birch finish. The second story is finished in white enamel with birch floors. The house is warmed by hot water heat. The first story is 9 feet high and the second 8 feet 6 inches. Size 30 feet 6 inches by 43 feet. Architect's statement of cost, $7,500.

Design B 270.

This pretty bungalow is 36 feet wide frontage and 38 feet depth over the front piazza. It has one main floor with a large living room, dining room, kitchen and two bed rooms and ample attic space in which one or more rather low rooms can be finished, but are not included in this estimate.

There is a good basement for laundry and heating plant. The exterior is designed to be cemented with a rough "peb-



—Rufus D. Wood, Architect

A Picturesque Cottage Type

DESIGN B 267

ble dash" and the interior plastered and finished up in fir or pine and stained dark mission. The cornices have a wide overhang and the rafters showing and stained brown, together with all cornices, the soffit of cornices being painted a light cream color. The roof is shingled and stained a rich Sienna brown. The cement can have a water-proof wash, giving it a moss green shade if desired.

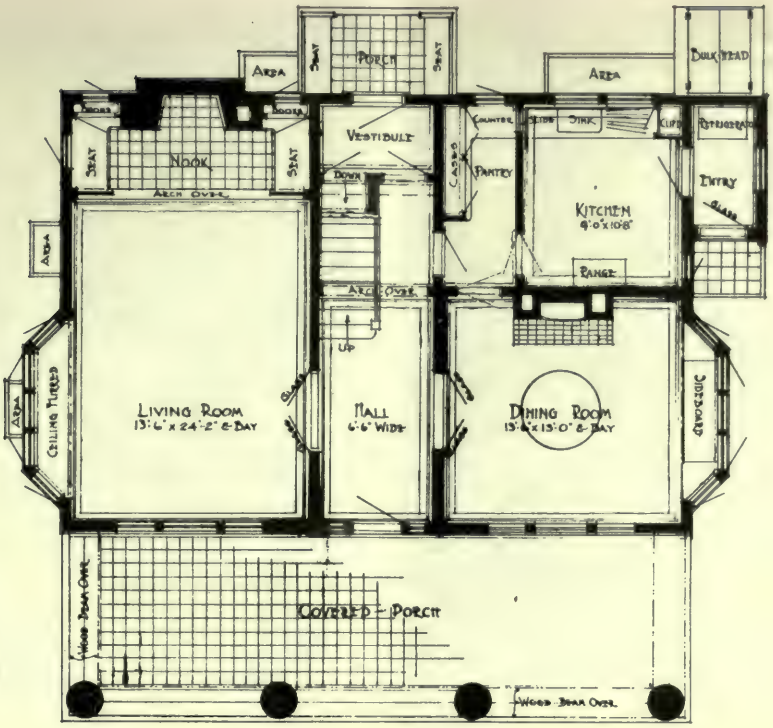
This design will make a very artistic and comfortable home for all year around or is well adapted for summer cottage at ocean or lake side.

It is designed to plaster, case up and otherwise finish the bungalow complete. The main floor of birch varnished or waxed to suit. The main piazza should be screened in and all windows and outside doors screened. The estimated cost is $2,700, without heating or plumbing.

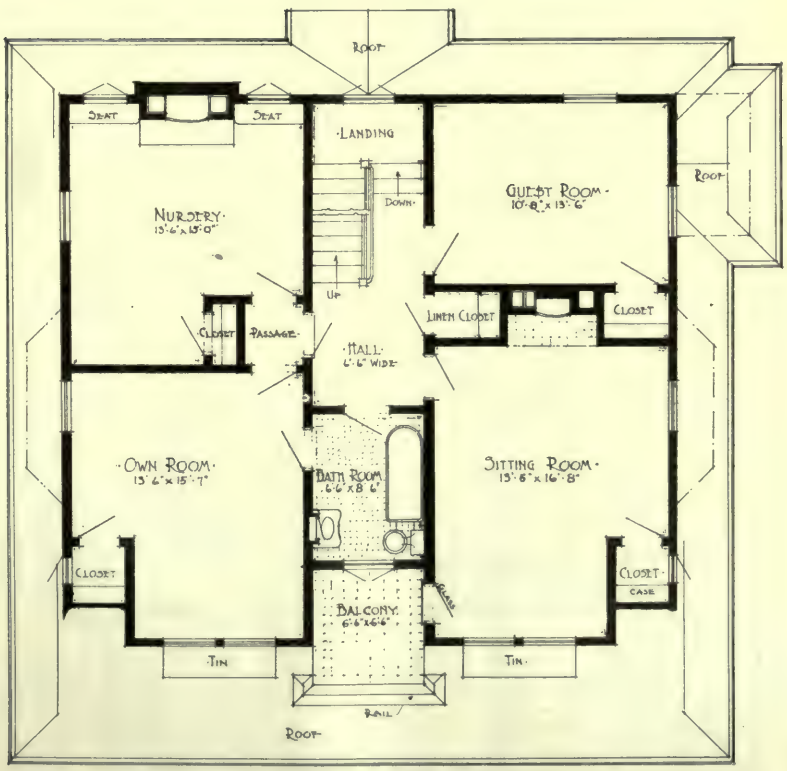
If the exterior was shingled instead of using cement it would lessen the cost about $100. The shingles should be of the best extra red cedar and could be stained or oiled, either making a beautiful finish.

Design B 271.

This double English cottage is a type for which there is an occasional demand owing to economy of construction, etc. Foundation above grade, faced with brick, walls above of hollow tile faced with stucco and stained shingle roof. Each cottage contains front and rear porches, living room, dining room, kitchen, bath and three chambers with numerous closets. Oak for the principal rooms and white enamel in chambers is suggested for finish. The size is 45 feet by 30 feet. The architect states that the house can be divided along the center line, making a single dwelling if preferred. His estimate as described is $4,700.



FIRST FLOOR PLAN



SECOND FLOOR PLAN



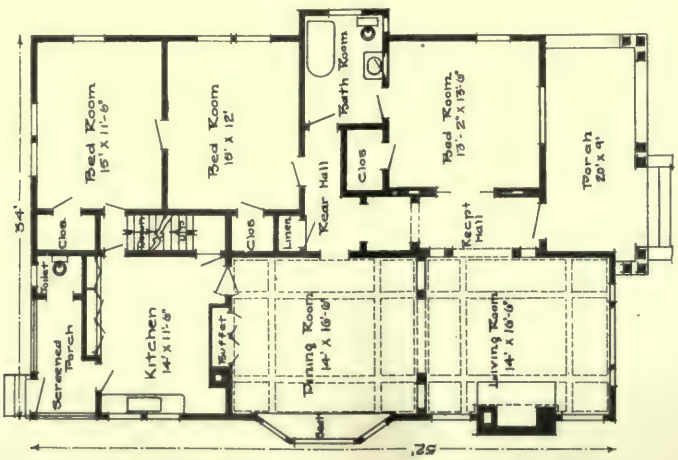
—Rollin S. Tuttle, Architect

A Bungalow of the Better Class

DESIGN B 268

Design B 272.

This bungalow is a departure from the ordinary type, it being raised a trifle higher, thus providing a fair attic space in which at least two rooms might be provided. The exterior is shingled and the porch walls and piers are of stone. The living room and dining room occupy the front and are of generous size. The kitchen does not open directly upon the dining room, there being one other door between. The appointments are very complete. The ice box is in the entry from which the stair leads to basement and outdoors. The stair to attic is arranged over these. There are two cham-





—Cecil Bayless Chapman, Architect

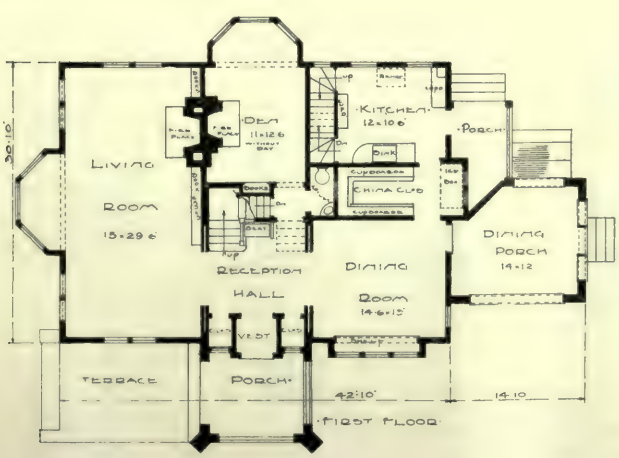
A Good Design with Unique Ideas

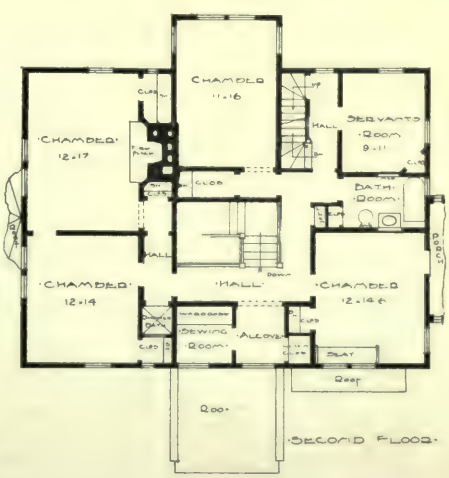
DESIGN B 269

bers with closets, a bathroom and a linen closet upon a private passage. The finish and floors are of Georgia pine throughout. There is a small furnace in the basement, which extends only under a portion of the house and is 7 feet 6 inches high. The house is 30 feet wide and 26 feet deep. The porch, rear chamber and bathroom are not included in these dimensions. The cost estimated is $3,000, including heating and plumbing.

Design B 273.

This square house is 32 feet wide by 30 feet deep without projections. Of







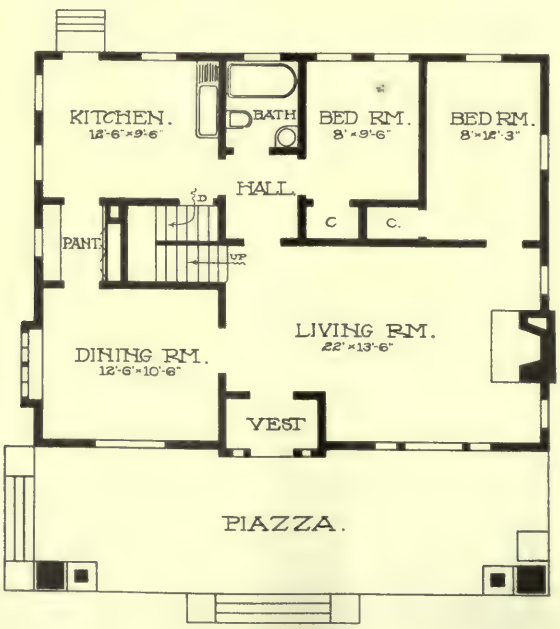
—Chas. S. Sedgwick, Architect

A Pleasing Little Cement Bungalow

DESIGN B 270

somewhat stately appearnce its first story is sided, its second story above sill course is of cement and its trimmings are of wood painted.

The stairs are in combination from the kitchen with cellar stair located beneath. There is a fireplace, sliding doors between living room and dining room and a





—John Henry Newson, Architect

A Double English Cottage

DESIGN B 271

columned opening to the hall. The kitchen is of good size with a well appointed pantry adjacent and a rear porch. On the second floor are four large chambers with closets and a bath room. The attic is of fair size for storage and one room.

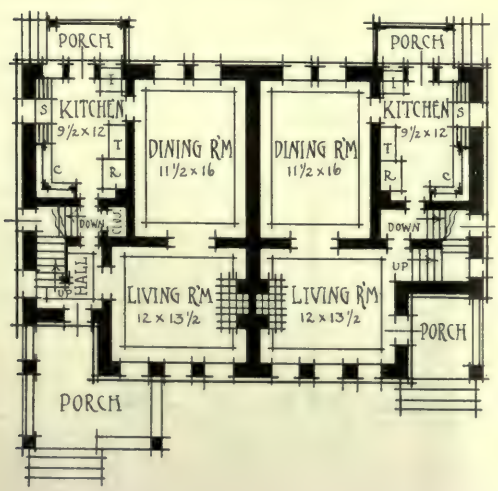
Oak and birch are used for finish and floors. The architect states that the house can be built for $4,100, including plumbing and hot water heat.

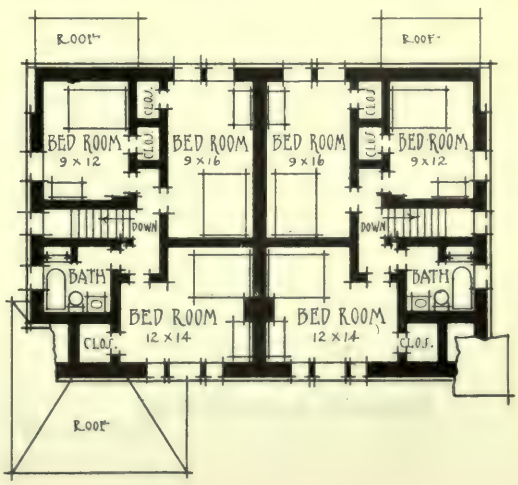
Design B 274.

The main feature of this design is the unusually large living room, it being 18 feet by 20 feet in size, without the bay window.

The second floor has three chambers, one of which is unusually large and there is also a bathroom included.

The basement extends under the dining room and first floor chamber. There is a hot air heating and ventilating sys-







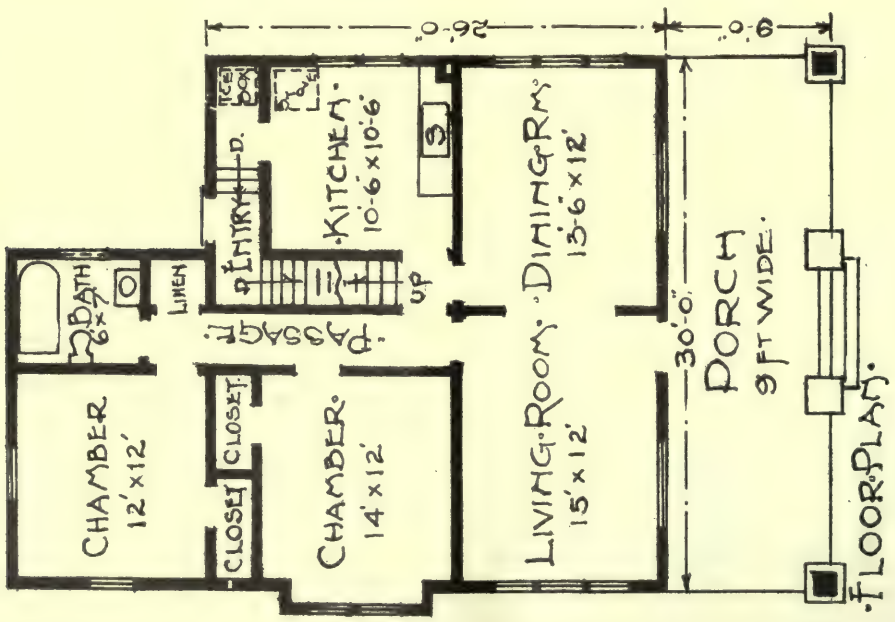
A Bungalow with Shingled Exterior

DESIGN B 272

tem and coal bin. The outside walls of the house are both face plastered and back plastered. It is finished on the outside with siding for the first story and shingles in the gables.

Double floors are included in both the first and second stories. The finish of the house is pine or cypress throughout.

Estimated cost, $3,300; width, 32 feet; depth, 50 feet; height of basement, 7 feet 3 inches; first story, 9 feet 3 inches; second story, 8 feet 3 inches; lowest height second story, 6 feet.

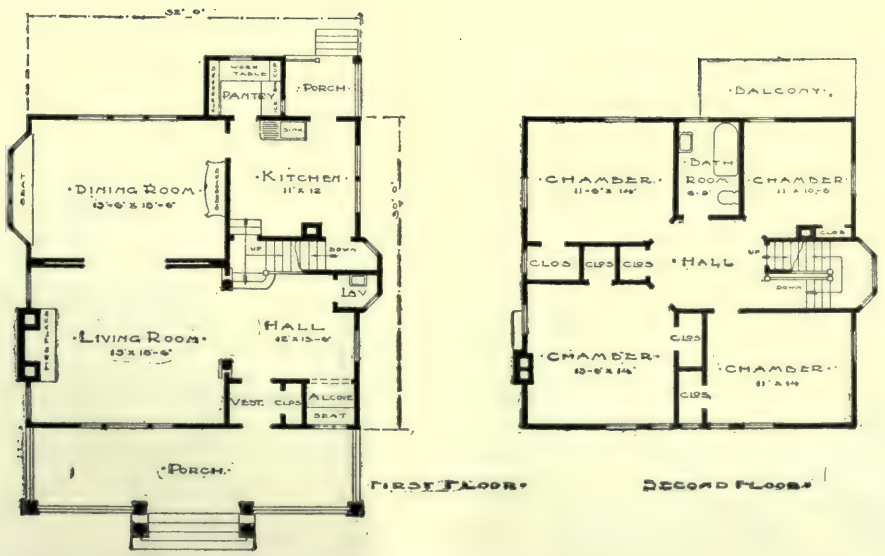




—Arthur C. Clausen, Architect

A Square House of Siding and Stucco

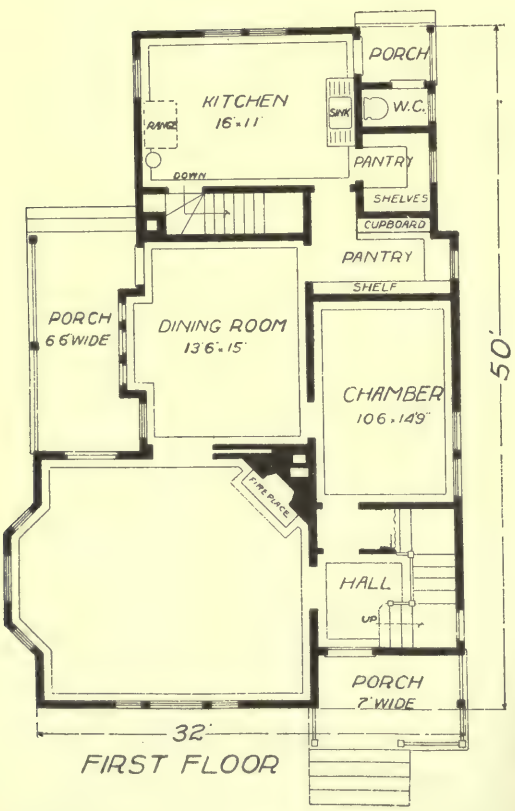
DESIGN B 273

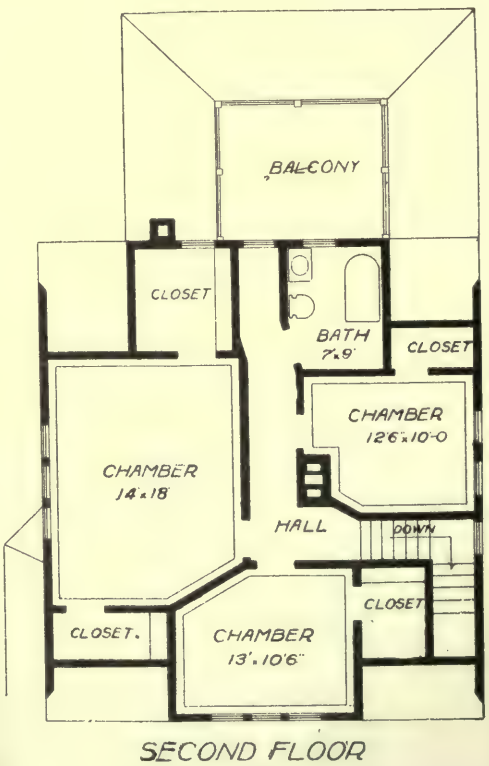




A Neat Little Cottage

DESIGN B 274





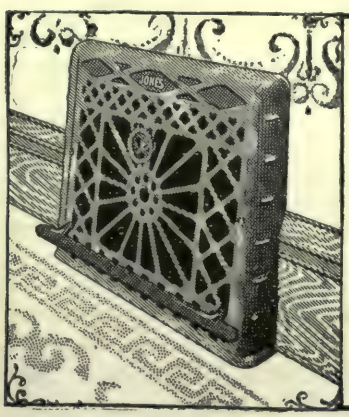


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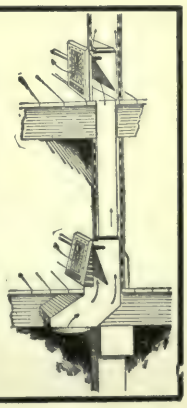
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The Dressing Room.

EXCEPT in very fine houses, indeed, the private bath room has largely superseded the dressing room. It seems a pity, for the dressing room, like the china closet, has a pleasant flavor of by-gone days. And there are many cases, where a bed room must be shared, or where the sleeper requires exceptional conditions as to air or temperature, in which a dressing room is almost a necessity, a necessity which is not met by any bath room, however complete.

Another point in favor of the dressing room is that it affords an opportunity for a more striking decorative scheme than would be desirable in a bed room, where sleep may depend upon one's surroundings. Strong color and decided pattern may have really serious drawbacks in the case of an ill or nervous person.

Harmonious Contrast.

Naturally the dressing room will adjoin the sleeping room, and while it may contrast with it in color, it should not do so too markedly. Take a bed room with green walls, white woodwork and furniture, and a deeper green rug, the dressing room may very well be gay with a rose patterned cretonne, but it will be well to use the same or a harmonizing green for the walls, and the rug, and to repeat the white paint of the larger room.

The Necessities of the Dressing Room.

If the bath room is near at hand a washstand may be dispensed with, but a set basin is always a great satisfaction, and may remain in discreet abeyance behind a screen. Such a basin will answer two purposes if it takes the form of one of the oval porcelain sinks, so common in modern apartments, and will be available for the bits of laundry work that one sometimes likes to do for one's self.

Most important of all is the dressing table, and here is an excellent chance to try one's skill at the manufacture of a draped one. A detailed account of the making of one of them was given in a recent number of this magazine, but there are a dozen different ways, all of them good. One thing to be remembered is to have the table low enough to sit before it with comfort. Almost any material may be used for the drapery, always premising that it be full enough, as the home made dressing table is apt to look skimped. With a cretonne table the glass tops are admirable and save their cost in the protection they give the cretonne.

While the Duchesse table, with a drapery over the mirror, is extremely quaint and picturesque, it is not nearly as satisfactory in actual use as the sort with a triplicate mirror. The latter is an expensive affair, but its essential merits can be had by a slightly different arrangement. Get three white enamel picture frames, without glass, one say 22x24 inches, the other two of a different proportion, 22x14. Have them fitted with looking glass, which need not be French plate, and substantially backed. Then hinge the two narrow ones to the large one with their lower edges at least an inch above that of the central mirror. When the central mirror is securely fastened to the table, in the same way as mirrors are fastened to bureaus, with long strips of wood or iron, the side mirrors will swing easily, at any desired angle. With the services of a carpenter the frames can be made of any hard



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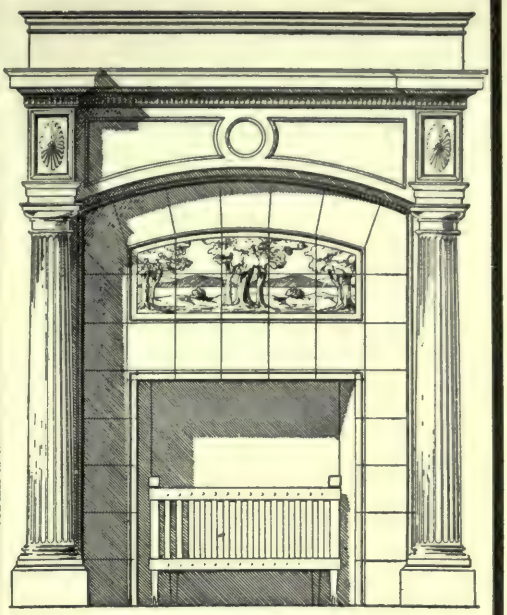
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wood picture frame moulding, and afterward enameled. The backs of all three should be covered with cretonne.

The English fashion of standing a dressing table in a window is an excellent one, when the mirror is a low one, as it secures a strong light upon the face of the person sitting at the table. It is less happy in the case of a high shaving stand or of a table with a draped mirror.

Matting and Small Rugs.

Everything about a dressing room room should be light and easily moved, and a matted floor is very satisfactory, with one or two small rugs. There are so many cheap and unsatisfactory mattings on the market that we are apt to lose sight of the real merits of a good matting. A Ningpo matting at seventy-five cents a yard gives indefinite service and is a pleasure to look at, with its beautiful texture and soft coloring. A plain white, cotton warp, Japanese matting, at fifty cents, is also worth having and can always be matched. It needs a lining, and the breadths can be sewed together like an ingrain carpet, the edges covered with a line of carpet binding.

Some Other Necessities.

The dressing room should be not merely a place in which to put on one's clothes, and do one's hair, but a secluded nook to which one may escape for a few minutes' rest, or for the quiet needed for some special piece of work. It ought to have at least one comfortable chair, and one may choose between the high backed, cretonne covered, fireside chair, with its picturesque wings, or a Canton hour glass chair. The latter looks particularly well in association with the standing, wicker sewing basket, which ought to find a place in the dressing room.

The Dressing Room Couch.

The couch is a prime necessity, and it is well if it can be not only a couch but a chest. A good box couch with a carefully fitted slip cover of cretonne has the advantages of holding a great deal and also of being a most comfortable bed, on occasion. Failing this and, if closet room is ample, it may well be thought that a smaller couch is more desirable. There is real satisfaction to be had from one of the old haircloth covered sofas so common forty years ago, re-covered and provided with plenty of pillows. A useful annex to the couch is a tall screen to fold about its head to shade the eyes and to shut off the draught, and such a screen is always a pleasure to the eye as well as a convenience.

The walls of the dressing room are an appropriate place for family photographs which are so singularly out of place in the public rooms of the house. Or if one cares to have things in keeping, portraits of famous beauties or historical pictures including elaborately costumed figures, are in order.

Rugs or Carpets.

The question of floor coverings will always be a difficult one with people of moderate means, for we have not, as yet, arrived at the time when it is possible, except in rare instances, to get a cheap rug which is satisfactory to the eye. And the more expensive rugs seldom seem to strike the happy mean between dull and gaudy color. To an eye which has learned to love the pleasing irregularities which give individuality to the Oriental rug, the English and American rugs which are inspired by them seem disagreeably mechanical in effect. The pattern of a good Persian rug has a certain regularity, the design of the different bands of the border being repeated with considerably accuracy, but the two ends of the centre are entirely different. Moreover, the colors are soft and the wool has a silky pile. The American designer copies this same rug, and the exigencies of manufacture compel him, apparently, to make the two ends of the rug alike, the wool used is harsh, the pile is short and the colors have a crudity unknown to the Oriental.

There is no doubt that it pays in the long run to buy an Oriental rug, but the initial cost is heavy. The courageous course is to stick to bare, polished floors, buying a small or large rug now and again, as one can. But if courage is lacking, yet one looks forward hopefully to Oriental rugs in the future. A compromise is possible. This is to cover the centre of the room with a square of velvet car-



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pet, brown, dark old red, olive or low toned blue, hemming the ends and fastening it down with rug pins, using small Oriental rugs at the fireplace and at doors, letting them lie well over the edges of the square. Such a square will cost about twelve dollars, of domestic carpet, and can be made to advantage of that which comes in a fifty-four inch width. It is a decent and dignified floor covering, and can later be cut into small rugs for bed rooms. If one chances to have a faded moquette or velvet carpet, which is not threadbare, it can be dyed, and the rug will cost but little more than a third of the price of new carpeting, although its term of service will be shorter.

But if one has not a taste for Oriental rugs—and some have not—of if the prospect of getting them is very far off, a made rug of two-toned English Wilton is extremely satisfactory. The borders to these carpets are of unobtrusive pattern and the whole effect is refined in the extreme, while their fine quality is in keeping with the most expensive furnishings.

Sheraton Screens.

As an acquisition of permanent value, a Sheraton screen is to be recommended. They are generally three-fold, about the height of the common paper screen, framed in brown or white mahogany. The distinctive feature is the latticed panel at the top of each fold, with clear glass between the gracefully curved strips of wood. The lower part of the folds is covered with some sort of brocade or tapestry, matching or harmonizing with the covering of the other furniture. Some of these screens are shorter, intended for use around the fireplace, with the glass top so placed that the fire is visible through it to anyone sitting behind it.

Furniture in Natural Birch.

Bed room furniture, in the simple cottage styles is made in natural birch. There are beds with slatted head and footboards of nearly equal height, chiffoniers, dressing tables and bureaus. The wood has not the distinct orange tone of the curly birch, but is only a little darker than birdseye maple. It takes an admirable polish and is well adapted to the city house of moderate pretensions, as well as to the country cottages, for which it is made.

Furniture of this sort has so little positive color that it needs a wall paper of definite character. Like birdseye maple furniture, it is at its best with a rose colored wall, with flowered cretonne furnishings, and it contrasts pleasantly with some shades of green. The same wood is to be had in the same style of furniture, but stained green, a rather bright green, which would look well with green and white cretonne.

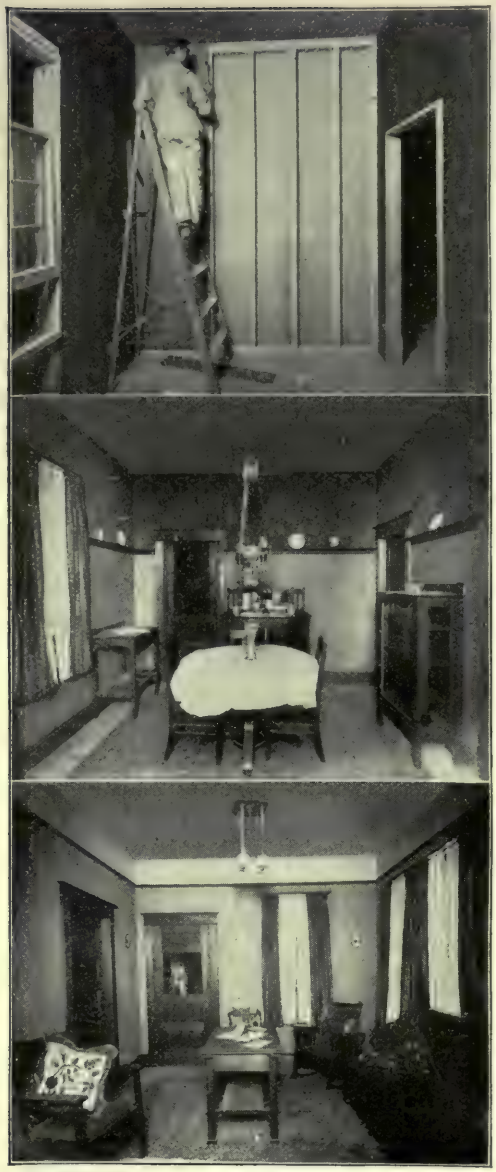
Red Burlap and Cretonne.

A New York shop shows some effective combinations of red burlap and high colored cretonnes. The cretonne chosen is one which has a conventional design of reds, blues, browns and greens and it is used for borders to a table cloth of the denim, and for stripes across the centre of couch pillows, also for borders to portieres. A good quality of burlap makes a serviceable portiere for a plainly furnished room, and its effect is much improved by a hemstitched edge. There is a gimp made of tapestry wool, in a very open design, about three inches wide, which is effective when applied to burlap or Arras cloth. It comes in red, blue and brown and costs twenty cents a yard.

A dainty finish for a hanging of cotton material in a plain color is a band Cluny insertion, either the real thing or the admirable machine made imitation, with a line of narrow tasselled fringe on either side of it. The two sides of a cretonne pillow cover are often put together with a band of this machine made insertion. Little touches of this sort give an air of elegance to very cheap and simple furnishings.

Finishing the Edge of a Silk Hanging.

An effective finish for the edge of a raw silk curtain is made by turning the material in on the right side and sewing on a half-inch antique gold braid. Small silk tassels, attached to a cord loop, such as are sold for a cent apiece, are sowed to the inner edge of the braid at intervals of five inches, at the side only of the hanging. A common furniture gimp may be used, also.



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Utility Wall Board

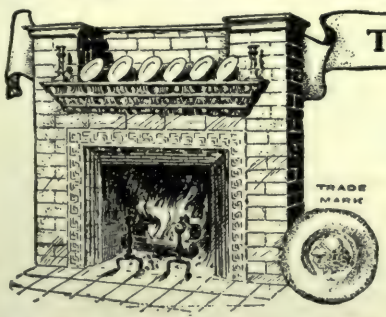
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ANSWERS TO QUESTIONS
ON INTERIOR DECORATION

Editor's Note.—The courtesies of our Correspondence Department are extended to all readers of *Keith's Magazine*. Inquiries pertaining to the decoration and furnishing of the home will be given the attention of an expert.

Letters intended for answer in this column should be addressed to Decoration and Furnishing Department, and be accompanied by a diagram of floor plan. Letters enclosing return postage will be answered by mail. Such replies as are of general interest will be published in these columns.

E. W.—Wishes color schemes and suggestions as to finish for a new house consisting of a living room, 13x23, and a dining room, 13x15, the two rooms separated by a narrow hall. The house has a southwestern exposure, and the walls are to be tinted.

E. W. Ans.—Your long living room, with its ingle nook and generous fireplace, ought to be charming. As your furniture is mahogany, you are restricted to a mahogany stain, or to white paint for the woodwork. As there is a good deal of the woodwork and the room seems to be very light, should recommend stained mahogany, tinting the walls a warm orange brown. With this a brown brick fireplace will look well, and you might have it built around an ivory tinted, plaster bas-relief. The hall seems to have no direct light, and either buff or a light yellow will look well, with woodwork stained a medium brown, what is sometimes called nut brown.

In your panelled dining room, either carry the panelling to the height of the plate rail, tinting the wall above it, or have a four-foot wainscot and omit the plate rail. Would suggest a weathered green stain for the woodwork. If you carry the panelling to the plate rail, use a brownish tan, with a slight suggestion of green, for the upper wall, with an ivory white ceiling. If you prefer the dado, use a side wall of grayish green, to harmonize with the woodwork. Would suggest your getting your furniture in the wood, and having it stained like the woodwork. Or by using a rug and curtains in brown and green tones, you can use oak furniture, either fumed or Flemish.

W. C. W.—Enclosed is plan of a cottage we are thinking of building. Have idea for south bedroom (gray wall, pink moulding, green rug), but what colors of woodwork would you use, white with dark oak furniture? North bedroom (all pine woodwork throughout), white furniture, green cottage rug, what color would you tint walls and color of woodwork? Also tell me colors to tint walls and color of woodwork in living room and dining room? Oak furniture, corner cupboard, one of those woven rugs (made of old carpet), mixed colors red, yellow and green, white net curtains; is what will use for dining room. Furnishings for living room will be small rugs in Indian blanket designs (only in Wilton, so colors will not be as bright as the real Indian wool blanket rugs), dark and light color Mission furniture, cream net curtains, fireplace red brick border, cement toned to warm gray color.

W. C. W.—Ans.: Inasmuch as the living room in both plans under consideration would have a south and west exposure, the color scheme for that room would remain the same. With such a facing, Indian rugs with their strong bright colors are hardly in tune. It will be best to offset these as far as possible by the use of a cool neutral color on the walls, such as a soft shade of gray, with ceiling a shade lighter. The woodwork should be stained a brown oak, which is very good with gray walls.

The dining room facing south could have the same woodwork with lower wall painted a dull green, with wall above the same gray as living room. This would help neutralize the carpets.

The exposure of the bedrooms in the second plan would be north instead of south and east, with a western outlook for the larger. Since the rugs for both are green, it is suggested to make the walls of the larger room a soft ecru instead of gray, as it is on the warmer tones, with white woodwork, and white,

'mid pleasures and palaces



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not pink, moulding. Then use a pink and green cretonne for curtains and chair covers, etc. In the smaller room, paint the woodwork a soft green, a shade to go with your rug, and tint the walls canary yellow with white ceiling. White curtains and bedspread. The dark oak furniture will then look very well in this room.

A. T. M.—I am building a cottage at the lake which consists of a reception room 14x14 (10-foot ceiling), with an 8-foot veranda running right around it. One back corner of the veranda, 8x12, will be closed in for a kitchen, the remainder being open except that it is built up 30 inches from the floor. The opening in the veranda will be closed up by curtains so as to make it suitable as a sleeping space. The roof will be cottage style, shingled, and project one foot over all around. I thought of painting the body a dark brown and do the trimmings in white. Will you give me the proper color for the roof where the body is brown? Should the window sash be done in white as well as the frames, or would brown be better as a contrast? I thought of using a striped awning material in green and white for veranda curtains. Would this be best?

Also give me the prescription for mixing a good oil stain in the desired colors, both for roof and for the body of the building, and let me know if a prime coat of white lead should be put on before the oil stain on the body of the building. I take it that it is not necessary on the roof.

A. T. M.—Ans: Your idea of painting body of house brown with white trim is good, but do not have a dark brown. A tobacco brown will be more pleasing. We should advise white sash as well as frames for the windows.

In regard to formula for mixing oil stain, we should advise you to send to Chicago for a five-gallon keg of one of the good ready-mixed stains of a standard house (85 cents). Either a bright terra cotta red or a green roof will be pretty for the lake cottage. The color of the awning will be governed by the roof color you select. The green and white stripe will be very pretty with a green roof.

It is not customary to use a priming coat before putting on these stains, but you should do so before painting.

H. D. B.—We are building a frame cottage. It will have both an eastern and southern exposure. Will you please suggest how to have it painted? We don't want it white. I would like a suggestion about papering dining room. Living room will be in tan and opens into dining room by sliding doors. Furniture is oak, and have thought of having woodwork all hard oiled.

H. D. B.—Ans: Nothing is more satisfactory for such an exterior than a warm cigar brown with white trim. The dining room would be pretty done in old blue, which would open well into the tan of the living room and be a good background for the oak furniture. The woodwork should receive a stain to bring it into harmony with the furniture.

B. T.—Please make suggestions. Doors, windows and door casings are varnished, but we are going to remove this and put on a yellow paint. It looks like yellow pine finish; I'm sure I don't know what they call it. It looks a great deal like varnish, as it's so shiny. Now our walls and ceilings are wood ceiling (most awful stuff to do anything with); talked some of putting on burlap. Is that possible, and how could it be put on, or would it be wiser to paint it? Most all our furniture is golden oak, some dull.

B. T.—Ans: It is hoped you will not make so serious a mistake as to cover your woodwork with the yellow paint. We presume you refer to an imitation of grained wood, that is on the market. Do not go to the expense of removing the varnish. Simply give the woodwork two coats of flat finish, dull green paint. Then do the walls of living room with a gray two-toned paper of indefinite design and the dining room in the soft tan. Let the side wall color run clear up to the ceiling. Your ceilings are too low to drop down on the wall. Cover the ceiling boards with burlap and tint over that—cream color of dining room and pale gray for living room.

Use green furnishings, rugs, etc., as far as possible in south living room, and brown tones in north dining room. This will make a restful background for the golden oak furniture.

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Premeditated Pleasure.

AUGUST is pre-eminently the the month sacred to the modest outing, the scant fortnight of rest and pleasure, snatched from engrossing work. The value of the change is wonderfully increased by the exercise of forethought and the careful planning out of details, whether the precious weeks are to be spent in a boarding house or in some sort of a camp, or in simple housekeeping.

If one is going to board, the clothes question is important, also an exact knowledge of the way in which time is likely to be spent. Probably many rather than few people go away over provided with dress-up garments, discovering after they have reached their destination that their finery is useless and that they would have been much better off with attire of a very rough and ready kind. It is of course different in a hotel, where one is hopelessly out of things without several simple evening gowns and an evening wrap, while day clothes may be of the plainest and fewest without exciting remark. Details of this sort are readily found out. But whether one's clothes are simple or elaborate let them be in order, so that one is absolutely free from the sordid necessity of sewing on buttons, or hemming up loose facings, or replacing missing hooks and eyes. Another bit of forethought is the provision of an ample stock of little things—pins, hair pins, stationery, all the trifles which it is almost impossible to buy in a country place, except at a prohibitive price.

Camping is another story. Part of the charm of camping is in the distance from civilization, but that implies a corresponding distance from the base of supplies, and lack of forethought may involve real suffering. The question of clothing is negligible, as far as appearances are concerned, but medicines of a simple sort must be taken along, as well as carefully calculated supplies of food, the latter in prudent excess of probable consumption.

The real tax upon the head of the family is when they keep house for a longer or shorter period in an unfurnished house. It requires the brains of a Macchiavelli to foresee all the necessities of such impromptu housekeeping, to steer between a cumbersome accumulation of paraphernalia on the one hand and a military comfortlessness on the other. You will not need a fish kettle in your sea shore shack, but a round wash boiler which can be packed with smaller articles will enable every member of the family to enjoy an occasional warm bath. Nor will you regret taking two or three decent lamps, even if you are quite willing to go to bed by candle light. There will be rainy evenings which will be cheered by the possibility of reading comfortably, and a lamp will dispel the early morning chill of the dining room quite as well as a low fire.

The Value of Imagination.

In planning for any sort of an outing, the exercise of the imagination is invaluable. Try to think out one day, from start to finish. Think what the breakfast will be and what cooking utensils will be needed, and what additional pots and pans provided for getting dinner. Go over the details of the necessary house-



ADOLF SCHERRER, Architect.

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This one on Interior Decoration

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work, deciding what brooms, brushes and cloths will be needed. Plan how often you will have washing done, whether in the house or out of it and calculate the amount of bed and table linen needed. The same consideration will apply to the clothes of the individual members of the family.

A Barrel for Each Room.

The writer used to know a family who had their summer housekeeping admirably systematized. They provided a barrel for each room. In it were packed the bedding, toilet ware and towels for that room, also all the small belongings of the occupant. When it had been unpacked a board was laid across its top and it served as a washstand and dressing table, being provided with a seemly cretonne cover. A cot bed, a shirt waist box, a small rocking chair, and two or three strips of portable hooks, adjustable screens and a small mirror, and a bed room was sufficiently furnished. The smaller children, two in a room, slept in hammocks, provided with thin mattresses.

Downstairs things were equally simple. The dining table was boards on trestles, with a swinging ironing table with shelves above it for a sideboard. Another swing table was in the living room. A hammock piled with cushions was a couch by day and sometimes a bed for the casual guest, or one of the family, and most of the chairs were folding. When it was time to go home the furnishings were packed for distribution between the store room and the cellar of the city house.

Economizing Gas.

Time was when gas was an extremely expensive article, even for illuminating purposes and its use for cooking was out of the question. Twenty dollars a month was not an unusual figure for running a gas range in the days when they were the luxury of the wealthy. But modern methods of production and the growth of an intelligent public sentiment as to the earnings of the corporations have changed all that, and gas is probably a cheaper fuel than coal in most places. But that statement needs qualification. Gas is cheaper for the actual process of cooking, but a continuous combustion of gas is more expensive than a continuous combustion of coal.

That being the case it behooves the careful housekeeper to consider means of diminishing the amount of gas burned by making one burner do the work of two, and by using as little gas as possible in each burner. Various devices have

The simplest of all ways of saving gas is to have a strip of sheet iron long enough to cover two burners. It will cost twenty cents at the outside and is as effectual as the appliance sold in the shops and by the gas companies for the purpose of heating irons, heating plates and keeping things simmering gently. With one burner at full pressure the part of the sheet over the unlighted burner will be quite as hot as the back part of a coal range. An ironing can be done with one burner and that not turned on full. A couple of holes at one end of the sheet will allow of the insertion of one of the wooden or metal handles used for carrying packages, and it can be hung up when not in use. Moreover the excessive wear to utensils of gas cooking is greatly minimized.

The sectional saucepans are very expensive, and they burn out as quickly as the cheapest enamel ware. Moreover it is seldom that three different articles require the same degree of heat, and the heat in each of the triangular sections is unevenly diffused. A workman's dinner pail, costing twenty cents, is admirable for cooking in small quantities. You can boil potatoes in the lower section and re-heat a stew or cook a bread pudding in the upper section, replacing the cover by the plates you wish to heat. The best of all the gas company's wares is the toaster of the sort which has racks around a central cone and even this is capable of two uses, for the coffee will boil on its plate while the toast is browning below.

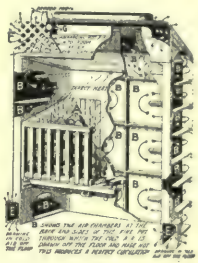
Another saving is to have the supply of gas regulated by means of the key in the pipe so that no more than is needed for perfect combustion enters the burners. It goes without saying that once any cooking process is established the gas should be turned down as low as it can be and still allow the boiling, frying or baking to continue.

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This is because it is really a return draft stove in fireplace form. 85 per cent of the heat is thrown out into the room instead of 85 per cent being wasted as in common grates.

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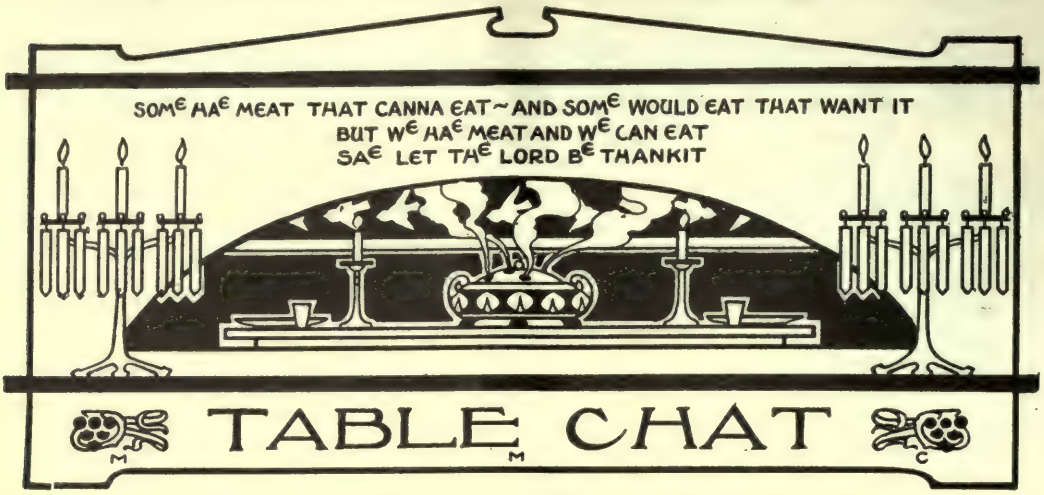
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Home-Made Ices—Fancy and Otherwise

By BEATRICE D'EMO

(Continued from the Jnly issue)



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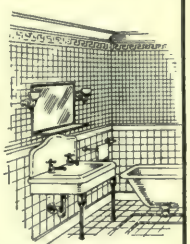
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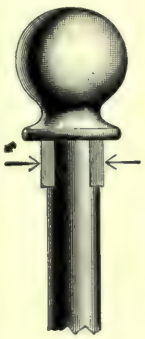


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FIG AND GINGER ICE CREAM IN MERINGUE SHELLS

bomb fashion, first with a layer of cream, then a center of water ice, but should have a strip of muslin dipped in melted tallow or paraffine tied around the lapping edges before being buried in the salt and ice, so that no water can penetrate to the contents. Box-shaped molds can be lined with paraffine paper before the cream is packed, the ends of the paper being left long enough to fold over the cream; then when ready to unmold the cream can be slipped out by means of these. Two strips of paper, one running each way should be used, and they should be laid perfectly flat before the cream is put in.

If a melon of bomb mold is used one-half may be packed with one kind and the other half with the other. As the foundation custard is made alike for all it means only fifteen minutes extra work to make two kinds of cream. The tiny freezers are excellent to use in this connection, for the cream is made quickly in them and they hold just a pint, so that twice filling will give the quart, which is the usual quantity for the average family.

Frozen Custard and Peaches.

Halved peaches with frozen custard make a delicious dessert, especially if the peaches are arranged in a fancy dish to form a border, then the custard heaped in the center; or two halves may be laid on the individual plate and a spoonful of the custard put in each. For the custard beat together three cupfuls of milk, the yolks of six eggs and a heaping cupful of granulated sugar. Put in the double boiler with a pinch of salt and cook until thick, then let cool and beat in a cupful of cream and vanilla or almond extract to suit the taste—two tablespoonfuls is the usual amount. Freeze as usual.

Biscuit Tortoni.

Biscuit Tortoni is a kind of superior frozen custard, for which beat together the yolk of six eggs with two tablespoonfuls of powdered sugar and a wineglassful of maraschino. Put in the double boiler over the fire for five minutes, stirring all the time, then stand saucepan in a bowl of cracked ice and beat again for five minutes. Add a pint of whipped cream and a tablespoonful of vanilla extract. Let the whole stand in the ice for ten minutes then pack in little paper tubs, sprinkle crumbled stale macaroon crumbs over the top and freeze, after standing the filled tubs in a tin that has a tight cover, and which can be packed level in the ice and salt. A round tin is best for the purpose. Freeze from two to three hours, then put each little tub in a fancy crepe paper basket and serve at once.

Meringue Shells.

Ice cream of any kind served in meringue shells is both nice to look at and delicious to eat. If within reach of a large bakery the shells can be purchased ready prepared for this purpose, but they are also readily made as follows: Beat the whites of four eggs to a stiff froth,

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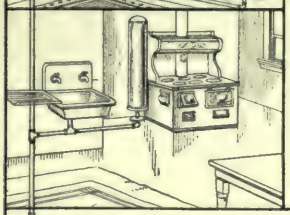
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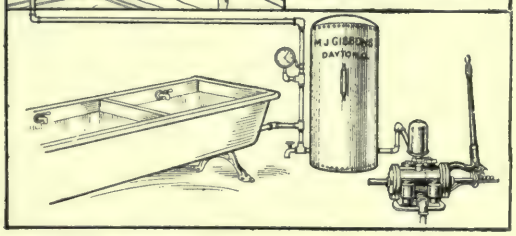
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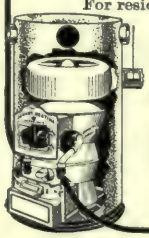
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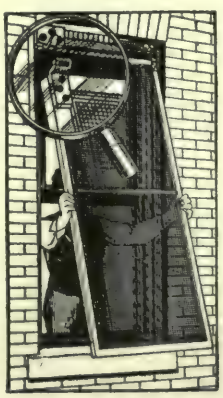
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then beat in a half a pound of powdered sugar and flavor with whatever will go best with the ice cream. With a large spoon dipped in ice water ladle out the meringue in heaps on stiff white paper laid on the inverted baking pan, putting the moulds at least half an inch apart. Shape them as near like an egg as possible. Put in a hot oven and when slightly tinged with brown take out, slip from the paper onto an inverted sieve and let cool. Put two and two together, as pictured, with the ice cream between. This recipe, by the way, is from a cook book nearly a century old. The meringues may be tinged a lovely pink by beating a little melted currant jelly or dissolved cochineal into the egg whites.

Fig and Ginger Ice Cream.

In the illustration, fig and ginger ice cream was used with the meringue. This is a rich and unusual ice. To make it, first make a custard of a quart of milk, or better, a pint of milk and a pint of cream, four eggs, both white and yolk, and half a pint of granulated sugar. While custard is cooking soak one and one-half tablespoonfuls of gelatine in a half a cupful of milk and chop fine a quarter of a pound of figs, a quarter of a pound of English walnut meats and a quarter of a pound of candied ginger. Add these with the gelatine and milk to the custard when it is thick, then let the whole cool, flavor with vanilla and freeze.

Lalla Rookh.

Lalla Rookh is simply a rich frozen custard served in high punch glasses in which is first put a tablespoonful of rum, then the ice, and a second spoonful of rum poured over the top. Sometimes a grating of nutmeg is added last of all. If alcoholic ingredients are not desired, a very delicious Lalla Rookh may be made by substituting a rich pineapple or raspberry syrup for the rum.

Roman Punch.

Roman punch is another ice with which liquors are used, and it is hardly possible to make it without, for it then becomes merely a rich, unusually good lemon sherbet. To make it either way squeeze the juice from ten lemons and two large oranges, then pour this over two pounds of sifted granulated sugar, add the thinly pared rind of a lemon and an orange, and cover closely. Let stand for an hour or so, then strain through a jelly bag and stir in slowly the stiffly beaten whites of ten eggs. Freeze as usual, beating twice while the freezing is in process, to make it smooth. Fifteen minutes before removing from the freezer stir in a pint of Jamaica rum and a pint of pineapple syrup. Serve in high punch glasses. This ice should be as white as snow and very smooth, but not frozen too stiff.

Peach Sherbet.

Peach sherbet is a rather new ice. It requires a quart of water boiled with a pint of sugar for twenty minutes; strain and let cool. Soften pared and halved ripe peaches by heating in the double boiler until the pulp can be rubbed through a sieve—a cupful and a half are required—then mix this with the syrup and freeze. Raspberries or pineapple may be used in the same way, but the crushed or shredded canned pineapple will require neither simmering nor other preparation.

Fruit Juice Sherbets.

To make a pretty purplish sherbet, make the usual syrup of four cupfuls of water with two cupfuls of granulated sugar boiled for twenty minutes, then add half a teaspoonful of gelatine which has been softened in a little cold water. This should be put in while the syrup is boiling hot. Let cool, then add a cupful of grape juice and freeze. Orange or lemon sherbet is made by using a cupful of the juice of either fruit in place of the grape juice.

Italian Ices.

Two odd and very good Italian ices are known as Milan ice cream and Neapolitan ice rice, respectively. The Milan ice is made by beating together the yolks of two eggs, a pint of cream and half a pound of sifted granulated sugar. To this is added two ounces of finely crumbled stale macaroons and half a pint of milk. Cook in the double boiler like any other custard until thick. Let cool, then add a wineglassful of sherry and freeze.

Tarpon Springs, Fla., Dec. 22, '09

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Enclosed find check for $1.00, to apply on my subscription. Am well pleased with your paper, and consider it one of the best cement magazines published.

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The Concrete Age

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Gentlemen:
May I ask you to send me another December copy of THE CONCRETE AGE. For some reason my copy got wet in the mails, and was ruined. Would not like to miss a single issue.

Yours truly,
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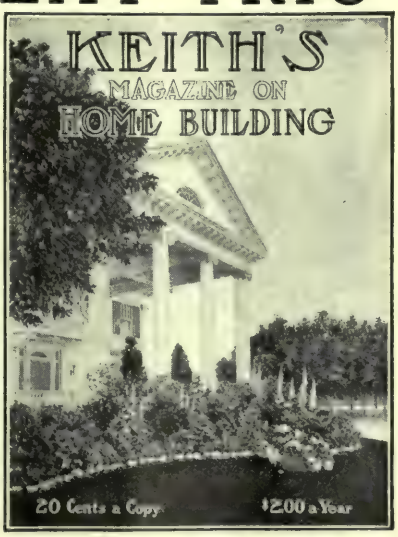
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Aims and Objects of the Cement Shows.

New York, Madison Square Garden, January 21 to February 3, 1912. Chicago, Coliseum, February 21 to 28, 1912. Kansas City, Convention Hall, March 14 to 21, 1912.

PERHAPS the most important of all the conditions which has brought concrete so conspicuously to the front is the most powerful influence of the time, money and intelligent effort that has been spent by the interests concerned in the advancement of concrete consruction, for the education not onlv of the building profession, but also of the general public.

The function of the cement shows is to stimulate the demand for concrete in preference to competitive materials; to promote the use of cement for purposes for which, by custom, it has not been used, and to popularize concrete construction by bringing it closely and intimately before the people.

It is the purpose of the cement shows to unite the allied industries for the advancement of concrete along broad publicity and educational lines, and to serve the direct commercial interests of the exhibitors individually.

The cement shows bring into personal touch the architect, the engineer, the contractor, the builder and the owner with the things in which the exhibitor wants to interest the architect, the engineer, the contractor, the builder and the owner.

It is the object of the shows to display before the people all the materials, appliances and machinery employed in the use of concrete, thus to demonstrate the substantial character of the industry and the magnitude of its extent and ramifications; to convey to the public mind persuasive evidence of the durability, fireproof, sanitary and economical advantages of cement construction.

Fireproof Residences.

The subject of fireproof concrete houses was discussed by F. B. Gilbreth in a paper read before the American Society of Mechanical Engineers as follows: "In a concrete structure there need be little or no combustible material. Let us take for example the dwelling house, for it is the most difficult to make both cheap and fireproof. In a concrete residence there is little trim that cannot be made better and cheaper of Portland cement than of wood. The chair rails and picture moulding can be made of concrete. The trim around the windows and doors can be moulded in metal moulds as cheaply as straight members. Even the wire mouldings can be done away with, and the conduits buried in the concrete partitions, walls, ceilings and floors.

"Baseboards should be made of concrete or else omitted entirely, as they serve no useful purpose in a concrete building. Windows may have cement sashes with wired glass and self-closing shutters or self-dropping shutters of rolled-up metal or asbestos. Metal furniture may be used. The paint and varnish used on buildings and furniture should be selected carefully, as these are great factors in determining the temperature at which a fire will start and the speed with which it will spread. There is also a great difference in the paints and varnish used for painting concrete."

Proportions of Different Materials.

New uses for cement are found daily, and new advantages and virtues in concrete construction. There is such a wide variation in the materials in different localities that it is often puzzling even to expert mixers to know just the proportions to use of the different materials. Alton M. Worden, Tullahoma, Tenn., in



Asbestos "Century" Shingle Roofs—Five Model Cottages, Esmond Co., Inc., Enfield, R. I.; Architects, Hilton & Jackson, Providence, R. I.; Contractor, P. Oscar Nordquist, Providence, R. I.

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"The Roof that Outlives the Building"

THE average property owner gets bitten in selecting his roof.

He takes too much for granted—likes the *looks* of his architect's sketch and forgets to insist upon *durability* in the roof. It's only when bills for repairs and painting pile up that he realizes his mistake.

Asbestos "Century" Shingles are the only roofing in the market that combine architectural beauty with *absolute and permanent protection to the building.*

Asbestos "Century" Shingles are thin, tough and elastic shingles of *reinforced concrete.* They are the first and only practical light weight roofing ever made of this indestructible material.

They are proof against fire—against weather—against time. They need no painting or repairs.

Asbestos "Century" Shingles are adapted to all architectural styles. They come in many shapes, several sizes and *three colors*—Newport Gray (silver gray), Slate (blue black) and Indian Red.

It's worth your while to talk with a responsible roofer about Asbestos "Century" Shingles—*or write us.* Send for Booklet "Reinforced 1911."

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Factors

AMBLER, PENNSYLVANIA

Concrete Age, gives the following simple rule available to the expert or the beginner, equally as well.

Fill a bucket with the coarser material, gravel or broken stone, well shaken down. Measure carefully the water and pour enough in to fill the bucket level full. This will give you the exact amount of sand required to use with the gravel or stone, the bulk of the water representing the sand required. Now mix a bucketful of dry gravel and sand in the same proportion as above, again filling the bucket with carefully measured water. The water now represents the amount of cement needed to make a solid concrete mass. If it is desired to have it absolutely waterproof, use a small quantity of "Aqua Bar" or Hydratite or Hydratine, etc., which can be procured of dealers in masons' materials. A very good dry wood wall, or foundation, can be made by using less cement. It will not be nearly so waterproof. The walls can be filled with stone.

Cement Tile Roofing.

In spite of a wide field for the use of red or gray cement tile roofing, the Cement Products Exhibition Company was recently put to much trouble to find a local firm able to furnish a suitable tile for Miss Williamson's cement show prize house. In fact, it was impossible to find a red tile or to find a cement coating dealer who could guarantee success in the use of his exterior coatings on the gray cement tile available.

There are not enough makers of cement products today, especially of the higher grades, to satisfy the demand. New firms are constantly entering the field, but none are attacking the problem of cement roofing tile as they should.

The tile used on Miss Williamson's house was finally treated with a red cement coating, and it is probable that this will give the required tone and life to the roof that would be lacking with a gray tile in connection with gray cement walls.

Today brushed surfaces and special aggregates with their wide range and contrast of colors are but beginning to be adopted in residence and the better class of building construction. With the added warmth and life of wall surfaces so obtained, the red tile roof will probably give way to the less obtrusive gray cement tile. At present, however, the use of natural cement color is common, requiring a tint in the roof material. It is a new field open to every cement products manufacturer.

The Cement Gun.

Considerable attention has recently been called to a new method of placing concrete in construction work—namely, by means of the "cement gun." The "gun" is in reality a blowpipe, which works in much the same manner as a chemist's oxy-hydrogen blowpipe, for mixing and applying the concrete directly to the surface. On a truck are mounted two tanks, one containing the water, and the other the cement and sand mixed dry in the desired proportions. Both materials are under pressure, and are driven by compressed air into a nozzle, not meeting, however, until near the end of the nozzle. There the mixing is consummated, and the wet concrete is forcibly expelled against the wall or other surface, rapidly building up a compact layer.

Important claims are made for this new method, which has thus far been applied chiefly to stucco work; but it has not yet been developed sufficiently to give a final pronouncement as to its ultimate possibilities and value.

Tile Blocks in Houses.

Perhaps the greatest single innovation in the construction of the small country or suburban residence is the use of tile blocks with stucco applied to the exterior instead of to the outside framework of wood or brick. In place of brick walls covered with stucco, what is known as the hollow tile has come into use, the stucco being applied directly to the hollow tile. It is largely in this use of hollow tile and cement that the most serious attempts at fireproof construction are finding their chief expression.

Another point that is being recognized more and more by persons of modest means is that when the house is done, something in the way of landscape arrangement is in order, that the house may have its proper setting.

To Build a Really Sound Wall

do not plaster on wood lath. They absorb moisture when the wet plaster goes on—and swell. When they afterwards dry out, the lath contract and pull away from the plaster. Then you have a divided partition. The plaster is loose. In event of fire, the wood lined space back of the wall makes a suction flue for the flames and your home is quickly doomed.

Use Sackett Plaster Board

It is *fireproof,* composed of alternate layers of calcined gypsum and strong fibrous felt, cut into sheets, 32x36 inches and about the thickness of wood lath. These sheets are nailed to the studs, furring or joists, completely covering them with a firm, even surface of gypsum, over which the plaster coat is spread. Since Sackett Board and the plaster are both gypsum, they fuse together into a solid mass, *as hard as rock* and unaffected by heat, cold or moisture. Such a wall avoids plaster cracks, is soundproof and fireproof; lasts forever.

Do not spoil a good house with poor walls. Use Sackett Plaster Board in their construction instead of lath. For full particulars address our nearest office. Ask for booklet "K."

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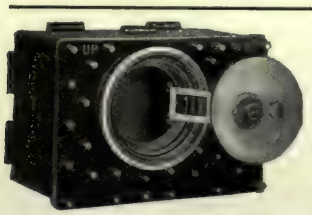
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Is Absolutely Fire, Hail, Storm and Acid Proof.
Easy to Lay and Easy to Handle, incidentally Saves you Money.
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WILLIS MFG. CO., Galesburg, Ill.

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Gale Wall Safe

in your new home. It makes your valuables safe against fire, thieves, etc. No home or apartment house complete without one. Made of a combination of Iron and Steel equipped with a combination lock.

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The Painting of Concrete Surfaces—Interesting Points for Both Owner and Contractor

THE advancement of cement, concrete, plain or reinforced, and stucco as a modern building material for all classes of structures has brought the Master Painter into the field of advancement of his arts and crafts.

The Cement World looks to him to solve the problem of decoration. The adaptability of the craft to the work is the solution "of the decorative feature."

Up to within recent years only black bituminous paints were thought of for coating concrete surfaces, and these surfaces were generally sub-structural, needing waterproofing, and coated only for their waterproofing properties. The substructures that were hidden in the earth as foundations, comprise exterior and interior walls and floors, due to the methods of reinforced concrete construction.

The adoption of cement and the access to its constituents has proven an important factor to its development, because of its cheapness, fire-resisting qualities and its stapleness as a building material.

Paint for cement, concrete and stucco surfaces is practically divided into two great divisions:

First—Colorless liquids.

Second—Pigments and vehicle paint.

They have two major functions to perform—decoration and waterproofing—with nine minor functions:

First—It must contain a vehicle and pigment, working in conjunction with the action of cement, concrete or stucco surfaces.

Second—It must be uniform and able to uniform the surface.

Third—It must contain an alkali, acid and sunproof color and pigment.

Fourth—It must produce a finish sufficiently close to the texture and originality of the surface.

Fifth—It must be sufficiently moisture-proof to prevent the penetration of moisture.

Sixth—It must be sufficiently adhesive to bond to the concrete.

Seventh—It must be sufficiently heavy to fill the voids and stop the suction.

Eighth—It must be sufficiently elastic to conform to expansion and contraction.

Ninth—It must have a sufficiently hard wearing surface to allow successive coats without further treatment of the surface.

Colorless Liquids.

These are used upon marble, granite, colored terra cotta, white cement and high-grade cast stone surfaces for waterproofing and preventing discoloration, due to the elements, but they do not uniform the surface. The action is generally a chemical change upon a cement concrete and stucco surface.

Preparation of Surfaces for Painting.

No hard or fast rule can be laid down for the preparation of surfaces for painting. However, here are a few practical pointers:

No waterproofing or painting should be undertaken under 45 degrees F.

No painting of concrete should be undertaken under a sixty-day set.

No concrete surface is actually uniform.

No acids should be used unless properly neutralized and washed with water.

No wall or ceiling composed of Portland Cement Mortar should be painted



A Skilled Painter and Reliable Materials

This is a combination that will insure a painting job of excellence. No matter how skilled the painter may be if the materials he uses are not good, the result will be disappointing.

Dutch Boy Painter White Lead

is a thoroughly reliable paint material and you may be reasonably sure that a painter who uses this material is a conscientious and skilled workman.

If you want to know more about paint, painting and painters write to us for "Painting Helps No. 264." They contain the names of Blue List Painters in your community who use Dutch Boy Painter white lead as well as color schemes and miscellaneous painting directions. They are free. Write to our nearest branch.

National Lead Company

New York Boston Buffalo Chicago
Cincinnati Cleveland St. Louis San Francisco

(John T. Lewis & Bro. Co., Philadelphia) (National Lead & Oil Co., Pittsburgh)

with a re-agent for treating the surface before painting.

No re-agent soluble in water is practical for exterior work.

No surfaces treated with acids as re-agents should be painted unless neutralized and washed with water and allowed to dry out thoroughly.

No surface treatment or re-agent is necessary after proper aging of the surface—six months to a year.

A new surface is caustic—caustic surfaces sized with a glue size will not hold color because the action of the lime on the oil will liberate strong alkalies and cause staining.

The cost of coating surfaces—two coats—with a pigmented material is generally estimated at 25 to 40 cents a square yard.

The covering on cement is about one-half that of lead and oil on wood—first coat—and two-thirds of lead and oil on wood—second coat—and equal to lead and oil on wood on the third coat for exterior surfaces.

The labor is about one-third greater than the application of lead and oil on wood for exterior surfaces.

The non-uniformity of surfaces, filling of voids and suction explains the covering coats.

Concrete Floors.

On concrete floors the covering of a cement paint runs from 200 square feet per gallon—first coat—to 400 square feet —second coat—according to condition of surface.

No concrete floor should be painted unless free from oils, grease or foreign matted, and thoroughly brushed clean before coating.

No one job is an example or guide—they all differ in uniformity of conditions.

No costs on painting concrete should be undertaken unless they are carefully compared by covering tests of material and ease of application.

No guarantees of wearing surface or waterproofing should be undertaken unless substantially covered by a price and quality of the materials. It is better just to guarantee a usual uniform job.

No surface is free from dirt and foreign matter, and it requires the removal of such substances, either by wire brushing or acid treatment, in order to secure a firm bond and penetrating quality to the surface.

Advice for the Workmen on Concrete Surfaces.

The painter should conform his methods of painting to that of concrete.

He should study and adopt a system of manipulation of surfaces; not guess at areas, but measure same and look to the uniformity of the surface.

The painter must bear in mind that he may have the surface to recoat, and so be careful in selection of materials.

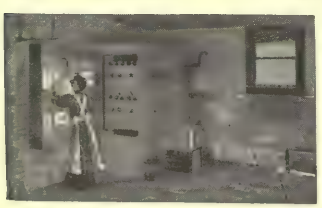
Be careful of the first coat, as it is the foundation for a first-class completed job.

Do not place too much reliance on the materials; workmanship counts.

The painter must under no circumstances estimate the work against a previous job, due to unforeseen conditions, but should make his estimate fully high enough to take care of this feature, and should bear in mind that the treatment of concrete surfaces along decorative and waterproofing lines is special work, and should demand a price considerably over the cost charged for ordinary lead and oil paints.

This is the Concrete Age, and the painter who is first in the field to familiarize himself with the conditions and the best coatings for concrete surfaces, their application and possibilities, is the man who is going to have a constant demand for his labor and materials.

NO DELAY TO GET THE CLOTHES DRY ON WASH DAY



When using the ***"CHICAGO-FRANCIS" Combined Clothes Dryer and Laundry Stove.*** Clothes are dried without extra expense, as the waste heat from the laundry stove dries the clothes. Can furnish stove suitable for burning wood, coal or gas. Dries the clothes as perfectly as sunshine Especially adapted for use in Residences, Apartment Buildings and Institutions. All Dryers are built to order in various sizes and can be made to fit almost any laundry room. Write today for descriptive circular and our handsomely illustrated No. K 12 catalog. Address nearest office.

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Works Wonders in Beautifying Home!



For Simplest and Grandest Homes

CHARMING Moorish beauty and dignity of appearance of Metal Spanish Tile gives an air of distinction to the home graced by this wonderful new and practically indestructible roofing.

It has taken home builders of America by storm, for it is the modernization of the wonderfully beautiful roofs of historic Spanish edifices.

The art of making this roofing, left behind by fleeing Moors driven out of Spain centuries ago, until 1910 could not be made practical for the modern home, despite its alluring beauties.

After years of experiment, we have hit the solution That is why today we are able to offer American homes the amazing attractiveness of

Metal Spanish Tile Roofing

Its scores of vital, practical advantages cost no more than common roofing, yet mean tremendous economy—it needs no repairs and outlasts several ordinary roofs because of its practically indestructible metal construction.

It is absolutely wind, weather, storm, fire and lightning proof.

Easy to apply. No soldering, no special tools—any ordinary mechanic can apply it. Interlocking system by which tiles dovetail into each other makes the roof absolutely water tight and provides for expansion and contraction perfectly—summer and winter. It is guaranteed non-breakable.

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The Edwards Manufacturing Co.

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See that this trade-mark is on every can of varnish used in finishing your new home.

You can get other varnishes that cost less—but you will regret it if you use them.

For all floors and other woodwork insist upon

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Warm Air Furnace Heating.

THE midsummer installation of heating plants is at hand and many are deciding what kind of a plant to use.

The great advantage of a warm air furnace heating system is that it supplies fresh warm air and this single feature from a hygienic standpoint places the warm air furnace in a position far superior to that of any other form or system for warming dwelling and buildings, and moreover the expense for the installation, operation and subsequent care of the warm air furnace system is much less than for any other system.

The warm air furnace to be effective, however, must be large enough, and it is, in fact, a matter of economy to use a furnace one size larger than is actually required, and it must be borne in mind too that the relation of the air supply, the size of the piping and the size of the registers to the furnace and to the rooms to be warmed are important factors in the success of the warm air heating system. The success of the system depends also upon the careful installation of the furnace, the piping and the registers.

Every warm air furnace heating system is a problem in itself. The rules entering into the science of heating cannot be ignored, nor can success be attained unless these rules be considered and applied to the problem with judgment. It sometimes occurs even after the exercise of care and thoughtful attention that a certain run of pipe or perhaps the entire system fails to realize the expectation of the owner and the heating contractor, and when this occurs it should be borne in mind that "every effect must have a cause," search for the cause, remove it, and the system will be successful. Minimize the chance of failure when planning a warm air heating furnace by observing these facts:

That warm air, following the law of nature, flows upward, and as the natural movement of the warm air is upward, it follows that the greater the elevation of the warm air pipes the more rapid will be the flow of air.

That warm air flows toward the point of least resistance, and the velocity of the air movement in a warm air pipe depends upon the excess of temperature of air in the pipe, depends upon the height of the outlet above the furnace, depends upon the absence of frictional resistance in the pipes and depends also upon the absence of pressure resistance in the rooms to be warmed.

Ventilation or circulation of the air is a necessary part of the system of warm air furnace heating.

In some cases either because the dwelling or building already constructed is not adapted for the change required for the introduction of a ventilation system or because for reasons of expense it is not considered, then circulation of the air—and circulation in ventilation—may be considered, and at very little expense.

The adoption of the circulation of air system provides in the absence of scientific ventilation a means for relieving the rooms of their pressure resistance.

The success or failure of the warm air furnace heating system finally depends upon the smoke pipe and the chimney, both of which must be properly proportioned, if the smoke pipe is not the proper size and the chimney is not equal in efficiency to its requirements and is not properly constructed it would be useless to expect success and the satisfactory operation of the furnace.

The first important consideration in warm air furnace heating is the space to be warmed, and this must be accurately determined by a rule that will consider the actual cubic feet, the wall and the glass exposures, to be followed by

Every home-owner should have this book



because it gives valuable information on that which makes for health in the family, convenience in housekeeping and economy in household expense—*stationary air cleaning*. It also shows why you should have your house piped with 2½-in. pipe to secure the most effective cleaning and gives full details of the working principles which make the

TUEC-170 **STATIONARY Air-Cleaning System**



the most satisfactory system to install. If you read this book you will realize that stationary air cleaning is a kindred convenience to heating, lighting and plumbing, you will see that you can't afford to be without it, and you will want the system that has been proven the most sanitary, most durable and most economical—the TUEC.

Whether your home is already built or just being planned write for this book.

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TUEC Companies in all large cities

Interiors Beautiful! 250 SELECTED VIEWS

Entrances --- Halls and Stairways --- Living Rooms --- Dining Rooms --- Fireplaces. Each Interior described with Notes on Decoration---Planning Color Schemes---Finishing Woodwork, Floors, etc.



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Keith's Magazine for a year and a copy of "Interiors Beautiful," $2.00.

Send your order today.

Compiled and Published by **M. L. KEITH, 524 Lumber Exchange, Minneapolis, Minn.**

the consideration of rules that will determine the size of the furnace required, the size of the warm air piping, the risers, the registers, the air supply, the smoke pipe and the chimney.—Furnace Man's Handbook, Copyrighted.

Hanging Indirect Radiators.

For obtaining the best results, indirect radiators should be hung one side of register or warm-air flue opening, receiving warm-air duct from the end of the indirect casing close to the top, and the cold-air duct at the bottom of opposite end.

A space of ten inches (preferably twelve) should be allowed for warm-air above stack. The top or roof of casing should pitch upward toward its exit, at least one inch or more in its length.

A space of at least four inches (preferably six) should be allowed for cold-air below the stack, and between it and the casing.

When large stacks (over 100 square feet of radiation) are required for hot-water indirect work, it is preferable to divide them into two or more connections.

Selecting a Boiler.

In determining the size of the heater to use, judgment should be exercised. The character of draft, the attention or care the boiler will get and other factors enter. It is good practice to select a boiler with a rating 50 per cent in excess of the actual surface in the radiators. This will take care of all piping on the average job and allow a margin for economy. This is not excessive, for even when mains are covered all the heat is not retained and the risers and other uncovered piping are a tax on the boiler.

Caution.

There are a number of devices on the market — some of them meritorious — which enable higher temperatures to be carried in case of hot water heating, thus reducing the amount of radiation necessary to install.



Under no circumstances must the boiler capacity be reduced where such an apparatus is used. The tax on the boiler may be lessened slightly by having a smaller quantity of water to heat, but the reduced quantity of radiation must give off more heat per square foot, and the higher temperature can only be maintained by keeping the same boiler capacity as was required for the radiation at the lower temperature.

Piping for Hot Water.

The first four paragraphs of "Piping for Steam" apply in part to hot water. Both flow and return mains must invariably rise uniformly from the heater not less than 1 inch in 10 feet (more if possible). No main should be less than 1½ inch, and this size not to exceed 20 feet in length. Branches for flows to first floor radiators should be taken off the top of mains, and for risers from the side. Branch returns from all floors may enter main return at side or top. When practicable, both flow and return should follow the same general direction.

Locate the expansion tank in a convenient and accessible place, safe from the possibility of freezing and well above the top of highest radiator. Connect the bottom opening with any return with not less than ¾ inch pipe.

There must be no stop valve between tank and heater. It should have a 1 inch overflow pipe leading preferably to the cellar near the heater or to the outside in a manner that it will not become frozen.

A New Bath Tub Base.

A patent has been applied for of a base fitting closely to the floor all around under the bath tub in place of the usual four legs. This will be much more sanitary and of better appearance and will undoubtedly be well received from the start.

Of the same material as the tub it makes a very neat finish to the fixture, and it is strange that it did not make its appearance long ago. It is a tiresome matter to get down and clean beneath a bath tub, set in between other fixtures as it is, and being very close to the floor. The housekeeper will welcome the new pattern.



DO YOU WANT THE BEST?

Royal Round Hot Water Heater.

Royal Sectional Steam and Water Heaters.

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SHARP

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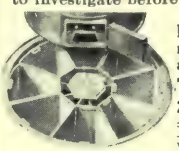


SO SIMPLE A CHILD CAN OPERATE IT.

DOES AWAY with unsightly ash barrels, — the inconvenience and drudgery of ash disposal. No piling of ashes on the cellar floor — no furnace dust in your living rooms. Unsanitary conditions corrected; all waste matter is contained in removable, strong, iron cans with the ashes in a cement-lined vault. All odors and dust go up the chimney. Mechanically perfect — a practical solution of the ash and garbage nusiance, guaranteed to give satisfaction.

EASY TO MOVE ASHES IN PORTABLE CANS.

THE SHARP ROTARY ASH RECEIVING SYSTEM can be installed in any building—OLD or NEW under any style of house-heating Furnace or Boiler before or after it is in operation. Ashes fall directly into strong iron cans that revolve easily as filled. Endorsed by Health Officers, Architects and Heating Contractors. Worth while to investigate before you complete your building plans.



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Holds 6 to 10 weeks ashes, removal of which is no effort.

If You Have A Fireplace



You can secure four times the usual amount of heat by using a

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These grates each heat two or more rooms on one or different floors in severest weather, and they will heat an entire residence with two-thirds the fuel of a furnace.

IF YOU HAVE NO FIREPLACE you can secure the effect of an ordinary open grate by the use of a MAYFLOWER OPEN FRANKLIN. Many people use them in preference to the ordinary open fireplace.

CATALOG "K" shows the Ventilating Grate. Send for this, and also for catalogues of Mantels, Franklins, Andirons, or anything else you wish in the fireplace line.

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Don't Carry Water

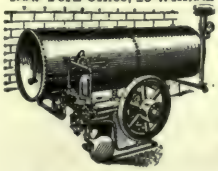
You need never carry another pail of water or even go out of the house on stormy days. Put running water in your home—in the kitchen—bathroom—toilet—and have an adequate supply in the barn for watering stock—washing carriages, harness—for the lawn—garden—or for protection against fire—besides. A

Leader Water System

makes this possible. It eliminates the unsightly elevated water tank that freezes in Winter—or dries out in Summer. The compressed air in a ***Leader*** Steel tank does **all** the work. In your cellar or buried in the ground it **cannot freeze,** and it solves the water problem forever. A complete system costs $48.00 upwards and you can install it yourself, if you like.

Booklet and Catalogue Free—Sign and mail the coupon below, and the booklet "How I Solved the Water Supply Problem" and complete catalogue will be sent you by return mail.

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SPLINTERS AND SHAVINGS

Economical Use of Oak Flooring.

AS rugs are nowadays employed almost universally in homes and offices, an economical plan is to have the center section of the room laid with oak flooring of the cheaper second or third grade, and to employ only the clear or first grade in the borders of the rooms. As all parts of the floor would have the same appearance, not even an expert would recognize that the rug-covered sections were not made of equally as high-class material as the border.

Persons living in houses having old-fashioned carpeted soft wood floors, and wishing to discard them, can have a covering of ⅜-inch oak flooring laid without in any wise changing the construction of the house. This material can be put over any sort of old floor without interfering with the woodwork. It is inexpensive and will improve the appearance and sanitation of an old house more than the expenditure of double the amount of money in any other way.

Wall Board.

An attractive booklet is that of the Heppes Company of Chicago, illustrating their utility wall board. This is an artistic material for interior use and is applied directly to the studs, taking the place of lath and plaster. It is claimed to be thoroughly water-proofed and made of tough, durable fibre.

It is easily placed in position and makes a fine appearance. Wall paper can be applied to it as readily as to any other wall construction.

The booklet is very complete, showing its construction and interiors of artistic homes where it has been used, together with much useful information.

Ready Roofing.

It is doubtful if the building public realizes the perfection to which ready roofing has attained, not only as a purely utilitarian product, but as an artistic feature of modern dwellings. It is so simple in its methods that anyone can apply it with a little care and if given reasonable attention will last a long time. Not only for roofs, but for sidewalls it is now available and the many different grades make it available for almost any kind of a building.

Steep or flat roofs are taken care of from the small shed to the handsomest skyscraper. The catalogue illustrating "Burmite" roofing shows its many uses, its fire resisting qualities and charming dwellings on which it has been used. The Bermingham & Seaman Co., Chicago.

Dyed Food for Birds.

Dr. Sauermann, an Austrian, has obtained curious results in coloration by feeding birds on food dyed with aniline. Pigeons became of a beautiful red. Other birds turned a fine blue with methyl violet. Canaries very soon bred with the rainbow. The experiments promise to have important results in this direction. The English sparrow by a little art in his nourishment might emulate the humming bird. Whether this would be to his advantage is another question. We are afraid that fashion might cast envious eyes upon him and cause him to regret his sober livery.

Plaster Board.

The home-builder will be interested in the booklet of the United States Gypsum Co., Chicago, New York, San Francisco, showing the uses of plaster board, both interior and exterior, and the method of application of the plaster surface. Certain locations about all houses would be improved by the use of fireproof partitions and their pyrobor tile may be just what the owner is looking for to solve his problem.

Fireplace Details.

An attractive fireplace in brick is especially suited to our modern interiors, either all brick or in combination with wood. The Colonial Fireplace Company of Chicago show several pleasing designs in their new catalogue of the above title.



JACK'S HOUSE

This is the house that Jack bought.

As an investment it did not give very large returns.

SAID JACK: "I must improve the looks of this house. I'll write to the North Western Expanded Metal Co., 930 Old Colony Building, Chicago, Ill , for their booklet 'O', which contains full information for 'overcoating' old houses."

THE ASHLEY SYSTEM SEWAGE DISPOSAL "Patented"

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FOR COUNTRY HOMES

is best secured by the ASHLEY SYSTEM. Don't allow disease germs to breed in open drains or in cesspools at your country place. Write for Free Illustrated Booklet. Address

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Sent on Approval



No. 43 "Leader" Hess Steel Furnace Price $49 Delivered East of Omaha and North of Ohio River Pipes and Registers Extra

We will deliver a complete heating equipment at your station at factory prices and wait for our pay while you test it during 60 days of winter weather.

The entire outfit must satisfy you or you pay nothing. Isn't this worth looking into? Could we offer such liberal terms if we didn't know that the **Hess Furnace** excels in service, simplicity, efficiency, economy?

We are makers—not dealers—and will save you all middlemens' profits. No room for more details here. Write today for free 48-page booklet which tells all about it.

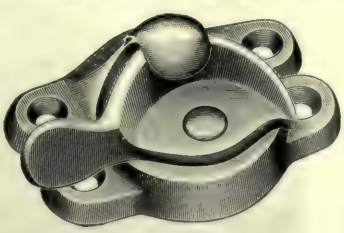
Your name and address on a post card is sufficient.

HESS, 717 Tacoma Bldg., Chicago

The "Crescent" SASH FASTENER

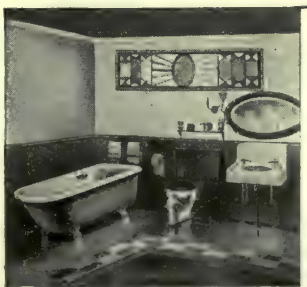
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I guarantee to save you 20% to 40% on high class goods. No seconds, only first quality. Write and let me prove to you the money I can save you. Illustrated catalog free.

B. K. KAROL, 768 to 772 West Harrison Street, Chicago, Ill.

What will be specially interesting to the home-builder are the illustrations of proper and improper methods in fireplace and chimney building, together with necessary appliances. The fireplace is an important feature and its construction should be carefully studied. The owner should "know," when he sees the work in progress.

The Door of Destiny.

This is the title of the catalogue of the Paine Lumber Co., Dept. K, Oshkosh, Wis. It is printed in color and shows doors of different woods set up with an attractive trim framing them. A number of beautiful doors are shown, giving a wide range for selection. It is best to purchase doors that are manufactured as a specialty because they are better and more economically made by door specialists.

The Brick Mantel.

This little booklet of Johnson, Jackson & Corning Co., Minneapolis, tells how to build a fireplace and flue that will not smoke. The illustrations of attractive mantels are specially fine.

Rugs of Orient.

This is the title of a very instructive book upon the subject. All the countries interested in the manufacture of these rugs are taken up and the rugs of each illustrated to the end that a study of the book is a liberal education. This subject should be understood at least to a moderate degree before very extensive purchases of rugs are made. A book of this kind should be worth many times its price as an aid in buying the right thing. Oriental rugs are what most people hope to have eventually, and a little preparation will no doubt save the purchaser from unnecessary mistakes. The book contains 126 pages 9⅜x12½, and the price is $3.00. Clifford & Lawton, publishers, New York.

Sketch Book of Fireplaces.

A catalogue with which even the architect will be satisfied is that of the Wood Mantel Mnfrs. Association of Indianapolis, Ind. It contains full page drawings of their mantel designs drawn to scale. Unlike many stock designs these have architectural details that follow historic styles and will therefore have the support of designers who have heretofore found it inexpedient to specify from a catalogue. This opposition has been quite justified in the past, for few of the designs offered could be made to harmonize with the balance of a house in good architectural style.

For this reason architects have made it a practice to carefully detail each mantel for each room of a given house where a fireplace was located.

Careful study of the requirements by manufacturers would make the selection of a mantel in a given style from a catalogue almost as easy and desirable as is now the selection of a bath tub.

Air Cleaning System.

The catalogue of the United Electric Co., Canton, Ohio, illustrates the Tuec-170 system of vacuum cleaning. The method of installation and devices used is carefully explained.

In a very short time no house will be considered complete without such a system and even if immediate installation is not to take place the simple provision necessary to do it later should be made in all new houses. Economy demands that the home-builder look into these matters while the house is being built.

Cypress.

The house-builder will be interested in the Pocket Library, a series of booklets upon the various uses of cypress as a building material, published by the Southern Cypress Manufacturers' association at New Orleans, La. Those at hand are illustrated and contain much valuable information as follows:

No. 3—Cypress for Greenhouses.
No. 5—Common Mistakes in Bungalow Building.
No. 6—Cypress for Bungalows.
No. 7—Cypress for Shingles.
No. 9—Cypress for Siding.
No. 12—Cypress for Exterior Trim.
No. 16—Cypress for Porches.
No. 18—Cypress for Bungalows.
No. 22—Cypress for Tanks and Silos.
No. 29—Cypress for Shingle Houses.
No. 30—Cypress for Pergolas.
No. 31—Cypress for Interior Trim.

Chalk the back of sandpaper to keep it from slipping under the hand.

WOULD YOU LIKE

A Bright, Original, Attractive **Home**

With Your Own Individual Ideas as the Key Note of the Design



No. 1279 as just completed in Indiana.

OUR $5.00 SKETCH OFFER

On receipt of $5.00 and a rough diagram or description of your own ideas we will make a special study of your requirements and prepare the first and second floor plans accurately laid out to a scale with a picture of the exterior of the house as it would appear when completed, advising you of the additional charge for Complete Working Drawings, Specifications, Etc., which will be as low as is consistent with the labor involved. This offer applies to residences only costing not over $5,000 and is made simply to demonstrate to you the value of competent services in interpreting and rendering practical your *original ideas* so that the home will be a complete success in every detail.

"There is no art to find the mind's construction in the face." —*Macbeth.*

—BUT—

"The dwelling a man builds, reveals his personality, and through its halls and porticos runs the story of his life."

Now if the problem be given proper consideration, it means *time* and *time* is money. We would be speedily overwhelmed with requests if this were a *free* offer, consequently it is not free. No signed contract is asked for. We propose to make our work so pleasing and satisfactory as to demonstrate beyond a question that the *best* is certainly the *cheapest* for you. The fact that *houses* built from our designs *sell* advantageously when built proves they are *practical* and *desirable*. *This is an important matter should you wish to dispose of your property.*

REMEMBER:—It is not what *you pay for plans* that is the *real consideration*, but it is *what you get*. Why? Because upon your *plans* and especially the *details* of *construction* depends utterly the *proper* or *improper* expenditure of *all your building funds*. Quite important, is it not?

THE KEITH CO., Architects

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Modernize Your Country Home

THE pleasure of living in the country or small town is greatly enhanced by a few city conveniences, the most necessary and comfort giving of which is a **Satisfactory Gas Supply.**

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Gas to Cook with.
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FOR ILLUMINATING AND COOKING

Will not increase your insurance rates. On the market over 40 years. More than 15,000 in use in Residences, Stores, Factories, Churches, Schools, Colleges, Hospitals. It will Pay You to investigate. Write us today—NOW—a postcard.

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Attractive Proposition to Plumbers



"REPUTATION AND QUALITY COUNT"

$25.85

For this elegant, massive selected oak or birch, mahogany finished mantel

"FROM FACTORY TO YOU"

Price includes our "Queen" Coal Grate with best quality enameled tile for facing and hearth. Gas Grate $2.50 extra. Mantel is 82 inches high, 5 feet wide. Furnished with round or square columns, full length or double as shown in cut.

Dealers' price not less than $40.

CENTRAL MANTELS

are distinctive in workmanship, style and finish and are made in all styles—Colonial to Mission. CATALOGUE FREE—Will send our new 112 page catalogue free, to carpenters, builders, and those building a home.

Central Mantel Company

1227 Olive Street **ST. LOUIS, MO.**

GLIMPSES OF BOOKS

A Prince of Romance.

By Stephen Chalmers.

THIS writer of Scottish life got the very atmosphere of the period in which he writes. One can almost feel the spell of "Charlie" the pretender to the English throne, so vividly does he represent the scene, the issue and the character of the people.

The period of the Napoleonic wars is selected when a pretender of the house of Stuart was still possible though hardly probable. Diplomacy seeks to create a diversion of England's force by an uprising in Scotland and success seems assured by the ready acceptance of the Scottish people of the pretender. He is a man every inch a king, so much in face and figure like the real Prince Charley that an aged veteran of the Stuart uprising thinks he sees the commander of his youthful days. The sight is too much and the old man dies without knowing the truth.

The popular excitement, the gathering of the clans and the love affairs of various characters make a very stirring and charming story. The Scotch dialect is not used excessively but enough to bring out the quaint humor, so unlike that of other people. The schoolmaster is principally instrumental in the introduction of the prince and his daughter is the principal feminine character. The doctor is a fine character and the English captain in love with his daughter is a man who endears himself to the reader. The book ends amid peace and quiet after many stirring events. Price $1.20.

Small, Maynard & Company, Publishers, Boston.

The Skipper and the Skipped.

By Holman Day.

Cap'n Aaron Sprowl, a name that makes one think of the salt sea, of "furrin" parts and of New England. Yet this is more a story of the land than of the sea for the cap'n has retired from the sea with his 'thutty" thousand dollars, and is first discovered as the keeper of the toll gate, in company with two parrots, "Port" and "Starboard," who hail the passersby with "Ahoy!" "Heave to!" "Down hellum!" etc., to the great amusement of all. The job does not suit him and he soon marries a nice little maiden lady who is greatly interested in nautical matters, having gathered her information entirely from literature. She promptly starts a history of his life and adventures which is in a fair way of being shipwrecked many times before it finds port.

The cap'n's brother-in-law has been the chief man of the town until the advent of the cap'n, who promptly takes the wind out of his sails. One of the first honors thrust upon the new townsman with thutty thousand dollars is his election as head of the fire department, with the privilege of furnishing several "spreads" each year to the members and paying the heaviest fines for any offense against its rules. His adventures at the only fire in years forms one of the most amusing chapters of the book. As first selectman he finds himself in his element after many years of command and incurs the ill will of many citizens, especially when his economy makes it possible to pay off the town debt. He is overruled and the money is spent in a grand celebration instead, which in its outcome fully vindicates his ideas. The book is very funny. Price $1.50.

Harper & Brothers, Publishers, New York.

The Haunted Pajamas.

By Francis Perry Elliott.

This is a very amusing book, founded on the idea that the pajamas make the wearer look like a person who has formerly worn them. The illustrations give a wrong impression as to the "nice" character of the book. A young man is made to look like a young lady, which causes a very serious misunderstanding. The hero is unique in fiction, a creation of character. Price $1.25.

The Bobbs Merrill Co., Publishers, Indianapolis, Ind.

KEITH'S MAGAZINE
ON HOME BUILDING

WITH WHICH IS CONSOLIDATED

THE JOURNAL OF MODERN CONSTRUCTION
IDEAL HOMES MAGAZINE

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THE PATIO WITH ITS CENTRAL FOUNTAIN, BEAUTIFUL PLANTS AND COOL ATMOSPHERE
—Lester S. Moore, Architect

KEITH'S MAGAZINE

VOL. XXVI SEPTEMBER, 1911 No. 3



THE CASTLEMAN HOUSE WITH ITS STUCCO EXTERIOR AND RED TILE ROOFS

The "Patio" Style of House

By EDITH EVERETT

SOUTHERN California is rapidly developing a type of architecture particularly suited to its mild climate. Sun parlors and roof porches are features of many of the houses, but the most delightful of all styles is the low Spanish house with its central court or "patio."

The two houses here represented are both essentially Californian. Both have delightful porches, both are built to fit the demands of the climate, and both have courts or "patios"—but the one has an open "patio," the other an enclosed "patio." In many ways these two houses are distinctive.

The first is located in the beautiful town of Riverside and is a residence that attracts the attention of every newcomer. Famed as are the houses of this vicinity for comfort and picturesqueness, there are few that excel this dwelling. Adapted from the Spanish and old California or Mexican styles, this delightful home is a triumph of the architect's skill. It fits into its surroundings perfectly. Backed up against the Rubidoux Mountain, its location, above most of the city, is a very attractive one.

The picture shows a front view of the house. The square porch with its red tile roof and the higher roof of the

"patio" are features that first attract attention. As the visitor approaches near the charming light plaster house with its red trimmings he notes the chairs on the roof. For this flat roof is the real sun parlor. The central portion is several feet higher than the surrounding roof. This higher part is enclosed by glass. A glance at the top of the house arouses curiosity to investigate the interior. Especially is the person not accustomed to the "patio" curious. The strange little hoods of red tile also cause question and mean sleeping porches.

Passing within the house, the visitor who was charmed with the exterior is delighted with the comfort and beauty of the interior. Each of the nine rooms opens into the central court—for this is a ten-roomed house.

But the central court or "patio" is most important. The picture gives some idea of this wonderful room. The stair landing shows in the picture. What can be more perfect in its way than this delightful place! In the center, banked with flowers, a fountain plays. All about are hanging baskets of ferns and flowers. The floor is cement. French doors lead to the various rooms. Easy chairs and small tables—tea tables and sewing tables—add an air of comfort. Beautifully lighted and airy, breathing the out door's atmosphere this court 24x34 feet is of course the room of the house. It is finished in dark wood, which contrasts well with the great windows and light cement floor. The patio—always sunny and pleasant—is the real living room. The true California air is given by the playing fountain and hanging greenery.

From the "patio" a broad stairway leads to the sunny roof—made of composition roofing. This is a delightful place to sit on a cool morning.

Opening from the court at the northeast corner of the house is the drawing room. It is finished in white enamel, and its walls are hung with imported tapestry paper. Here is a large fireplace with white mantel and in the corner near the fireplace are built-in bookcases. The furnishings of this room offend the artistic eye a little. Some way the bric-a-brac and the rugs are hardly in keeping with the plain elegance of the room. This, however, is the only discordant note. All the other rooms show perfect taste and adaptation. Back of the drawing room is the dining room.

Two of the bed rooms are located at the northwest of the house. There are two others at the back of the house—each has its own screened-in sleeping porch, for which the tile-covered hoods form roofs. Another unique feature of this home is the Roman bath. There are two of these. The two front bed rooms connect with one—the back bed rooms with the other. Like the baths of noble Romans these are sunk in the floor and are reached by a flight of steps. Nothing can be nicer than pool baths, for no one has been able to improve much on the idea of the ancient pleasure-loving Romans. Complete as this house is, so constructed that comfort is planned in each detail, it cost only about ten thousand dollars.

Modeled as it is on the Spanish idea, it is peculiarly suited to southern California, with its open-air sleeping rooms, its unique pool baths and its great "patio" so like the famous ones of Spain.

It is warm in cool days—this strange house—with its fire places and sunny flat roof. It is cool in warm days, for then the tinkling fountain plays in the airy "patio"—so that heat cannot enter there.

It hardly seems that anything is lacking—for the house is romantic and picturesque as well as pleasant and comfortable.

Plenty of room, plenty of sun, plenty of air is the rule of the second house. It is located on Marengo avenue in South Pasadena and is built in a novel way.



DRAWING ROOM IN THE CASTLEMAN HOUSE FINISHED IN WHITE ENAMEL



LIVING ROOM OF THE HOBERT HOUSE IN STAINED OREGON PINE



THE DINING ROOM OF THE HOBERT HOUSE FINISHED IN WHITE ENAMEL

Before the house is a large well-kept lawn, with broad graveled paths. Most of the trees are at the sides and back. The front view shows a frame house. In the center of the front is a rough brick porch. But the odd feature that first attracts attention is that the house is part one story and part two. For the lover of porches this house would seem a paradise. Proceeding around the house the visitor finds five porches and above in the wing two "clever" balconies.

Perhaps the two-story wing looks unsymmetrical to the mathematical person. But he who does not care much for the house from the front view is captivated when he reaches the rear.

The picture gives some idea of the pleasant open court or "patio." The flowers and vines, the cement walks within the court, the roofed portion that gives shelter from sun or rain, the open sun porch where the comfortable rocker stands—make the greatest skeptic sigh for the delights of this sheltered place—so charming where air and sun are plentiful. The tree, with hammock and swing, adds to the home-like appearance. The cool back porch in the two-story wing furnishes a sheltered dining room for warm summer days. This novel house has eleven rooms, and was constructed for about $8,000. It is built on the H plan. The large living room extends across the whole front and connects the two wings. This room is perfectly planned and furnished artistically, so that everything is in keeping. There is a heavily beamed ceiling with plaster panels. The woodwork is stained Oregon pine. On either side of the large enamel fireplace are roomy window seats. Altogether there is an air of comfort about this great living room.

Beyond the living room is the dining room, as the picture shows. This room is finished in white enamel and has an immense built-in sideboard. On the high window seat are pots of ferns.

Thus these two houses illustrate certain features popular in southern California.



THE PICTURESQUE HOBERT HOUSE FROM THE FRONT
—Lester S. Moore, Architect



THE REAR, LOOKING INTO THE PATIO, WITH SWING AND HAMMOCK IN FOREGROUND

Fall Planting of Hardy Bulbs

By TARKINGTON BAKER

(Author of Little Yards and Small Gardens)

HARDY bulbs may be planted as late in the fall as the ground can be worked. This must be true, because the catalogues of most nurserymen agree on the point. But I have planted many thousands of bulbs —in rich soil and poor soil—and I have never yet had the same success with the late-planted stock that I obtained from that planted earlier. My own rule is to plant the bulbs as early as I can obtain them. Every week of delay means deterioration and, with daffodils especially, there is an absolute loss of strength and vigor when the planting is postponed later than October. My own rule is to plant no narcissi after the end of September.

But whether the gardener follows this rule or not, he may be assured at the outset that success with bulbs demands thorough preparation of the soil in which they are to be planted. As a general thing, hardy bulbs prefer a light, well-drained, moderately rich soil, and this soil should be spaded to at least a depth of fourteen inches. Avoid manure; if this comes in contact wih the bulbs failure with them is inevitable. Under each bulb set out, place a cushion of clean, white sand—half a handful under each.



NARCISSUS SIR WATKIN

Many planters advise setting the bulbs from two to four times their depth beneath the surface, but this must never be taken as a hard and fast rule. Lilies, for instance, require a greater depth, and in all cases the deeper the bulbs are set the later the flowers in the spring and, possibly on this account, the better the results.

When the bulbs are planted, the addition of a light mulch is beneficial, but winter covering should not be added until the ground has been frozen to a depth of at least an inch. Then spread a blanket of leaves—preferably those from hard-wooded trees—or straw, and let the layer be three or four inches in thickness.

Bulbs may be planted in beds or borders, by themselves or with other plants, generally with hardy perennials or shrubs. They may also be planted—or "naturalized"—in the grass. But in planting them thus, avoid regular lines and designs. Confine regularity to formal beds—it has nothing in common with the practice of "naturalizing." In formal planting, do not mix varieties—especially avoid combinations of tulips and narcissi, for example. Limit the formal



NARCISSUS "EMPRESS"—BICOLOR

planting to the use of colors in solid masses, as, for instance, crimson tulips in the center surrounded by white tulips on the edges. When naturalizing in the grass, use the smaller bulbs rather than the larger; among those best suited for this purpose are the crocus, chionodoxa, snowdrop, scilla, winter aconite and snowflakes. All are cheap and should be planted in liberal quantities.

Usually the hyacinth is allowed first place among hardy bulbs, but, in recent years, the hyacinth has been losing its popularity. And rightly, too. The position of honor should go to the narcissus, as a matter of fact, and second place should be granted the tulip, while third place should be the lot of the hyacinth. While the colors of the narcissi are confined to a very narrow range of yellow and yellowish white and streaks of red, the hardiness of the bulbs, their quick response to good treatment and their permanence are greatly in their favor. For formal bedding, of course, the tulip and hyacinth must be relied upon, but for all other planting, make generous use of the narcissus.

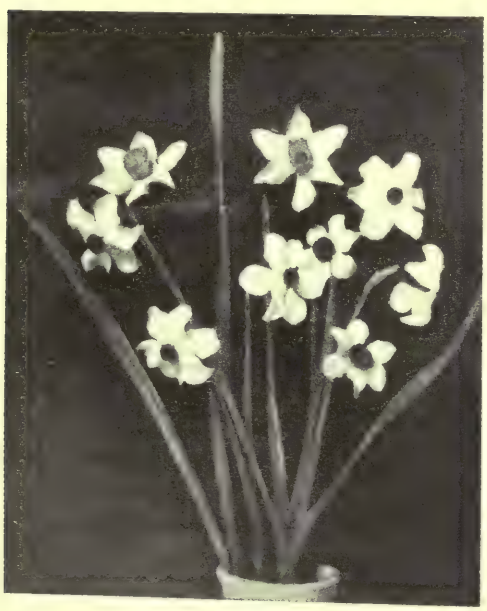
It is almost impossible to say which daffodils are the best for outdoor planting. The Golden Spur is one of the best yellow trumpets, and the Emperor and Glory of Leiden stand in the same class. Among the bi-colors, Empress, Victoria and Horsefieldi are the best. In the all-white group, select Madame de Graff, Mrs. Thompson and William Goldring. Other desirable varieties are the Bulbocodium, the Maximus, Henry Irving and Major.

Among the incomparabilis varieties, Sir Watkin, with very large petals of a



NARCISSUS HORSEFIELDI

rich sulphur-yellow color and large cup tinged with orange, is one of the best. Others that are good are Stella Superba, Figaro, and Cynosure. In the Barrii group, Conspicuus, with large yellow flowers and bright red-edged crown, is



NARCISSUS POETICUS AND NARCISSUS FARRII CONSPICUUS

probably the best for general purposes; it is also the cheapest. In the Leedsii, Mrs. Langtry, with flowers of pale yellow, borne freely and excellent for cutting, is at the head. The two best varieties of the fragrant poet's narcissus are the well-known poet's narcissus itself, sometimes called "pheasant's eye," and N. poeticus ornatus, which blooms earlier. The most important of the double daffodils are the Van Sion and Sulphur Phoenix.

The snowdrop is the earliest bulbous flower to bloom out of doors. Galanthus Elwesii is the giant of the genus, but it is not so early as the smaller variety. The snowflake, sometimes mistaken for the first, is another early bloomer. It is listed as Leucojum vernum. Scilla Sibirica is another excellent flower appearing early in spring, and should be generously planted. Its rich blue color is delightful. Other desirable bulbs are Chionodoxa grandiflora or C. gigantea, with single blossoms an inch or more across and of a light blue color; Chionodoxa Luciliae, with smaller flowers of still lighter blue. The crocuses need no plea in their behalf; all of the named varieties are worth planting, and the small cost of the bulbs should lead to a liberal use of them. Eranthis hyemalis, the winter aconite, with yellow flowers, sometimes will open in February. The following planting table will be a safe guide for the setting of these smaller bulbs.

	Depth inches	Distance apart inches
Snowdrop (Galanthus)	2	2
Glory-of-the-snow (Chionodoxa)	2	3
Squills (Scilla)	3	4
Winter Aconite (Eranthis)	1	4
Crocuses	2	5
Spring Snoflake (Leucojum)	2	4

Such blossoms as these are not a rarity by any means. A few bulbs, a little effort wisely expended now, will yield a fragrant, beautiful and prolific harvest of blossoms. (To be continued.)

Calcutta Bagdad Embroidery

Oriental Handiwork for Occidental Fingers

By BESSIE BERRY GRABOWSKII

IN presenting this embroidery to you, which is so fascinating to the average housewife, I think a little introduction as to its origin will not go amiss. The work or almost tapestry, I might call it so, known in our Oriental shops as "Calcutta Bagdad," and which is so expensive to buy, is done, some people suppose, in Calcutta, India, and carried from thence into Bagdad, the Turkish province, and thence sold to those who bring it into our country. By others it is thought to be done by Mohammedan women, and often finds its way from the harems, by secret means, to the world of commerce. The work is all hand done, and is on a wool canvas, woven in strips and joined, after being embroidered, by rude sitches clumsily executed, yet with an artistic touch, known only to the East Indians and Orientals; in other words, it is a combination work of these two countries—India and Turkey. As before stated, it is an expensive product to buy the original work, and though the envy of many an artistic woman is beyond her means. It shall be my endeavor, however, through this article to show her how she may do it herself, and have, for a minor sum, and but little labor, that which will give her this much-coveted article.

As before mentioned each strip is done separately, the foundation being of wool canvas; this I have seen in some of our American shops often, and at a minor cost. The design as you see by our main illustration is rough, and is done both with wool and a heavy mercerized thread, either you prefer. Figure 1 may be used as a couch cover or a portiere—the first strip is of a delicate gray, the second an old rose, the third a pale tan, the fourth an old rose, and the fifth a darker gray, showing the rough way they are combined, and yet the coloring is most harmonious. In the gray stripe the flower is of a dull dark blue with black outlining, the two long corn-shaped figures, or



Fig. 1. MAY BE USED FOR HANCING OR FOR COUCH COVER

It is done in dull shades of wool canvas in both wool and mercerized threads.

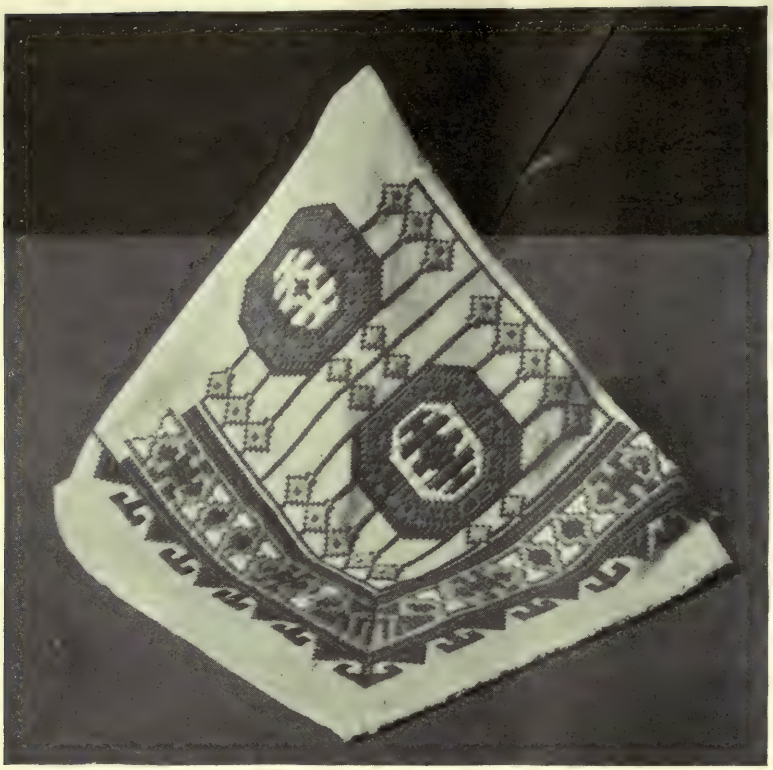


Fig. 2. AN EXQUISITE TABLE COVER OF SOFT GRAY GREEN, EMBROIDERED IN THE "OLD" SHADES OF ORIENTAL COLORINGS

leaves, are done in a dark tan or more of a burnt orange shade; almost white is used for the little feathery part above and below this figure. The burnt orange is used for the stem and the other figures of this group, and are all outlined in black. This figure is repeated the entire length of the stripe, till you get to the tree at the extreme end; this has the top leaves of dull gray, the stem and next group of leaves in black; the next row of leaves in pale olive and the bottom or foundation of a rich reddish brown. The second stripe, the figure is carried out in greenish blue, pale tan, black and an oyster white. In the main figure the center flower is of a blue, the two upper leaves of a paler shade, and the other shades dispersed through the design in proportion. With the third stripe the main figure is a very dark green, the upper leaves of a deep red-brown edged with an almost salmon shade; the burnt orange and dull blue being combined roughly in the lower stems and leaves. In the fourth stripe the main figure is the red brown with a white center, the long upper leaves of the salmon, edged with the red brown, and the lower leaves and stems are the blue, pale tan and orange combined. The last stripe has a center figure of a burnt orange, the upper leaves are the orange edged with gray, and the lower leaves and stems are formed of the red brown, pale tan and blue. As a border on each side of these stripes you will see a zigzag row of long stitches, forming points; they are done with the color that forms the center figure in the stripe. In the center of each of these little points is a crow's foot of black. Much black is used throughout these designs, and at once marks it more



Fig. 3. DEMONSTRATION SHOWING THE STITCHES USED FOR DOING CALCUTTA BAGDAD

Indian than Oriental. Nearly every figure throughout this work is outlined, after being embroidered, with dark brown, black or dark blue, principally black. After the stripes are finished they are whipped together in long loose stitches with the black thread. This work may be done on cotton canvases using cotton threads, or it may be done on wool with silk threads, or wool may be used throughout.

Figure 2 is a table cover only one-quarter done. This has a carpet effect such as the rugs which come from this district. It has the coloring of old rose, old blues and greens, dull pinks and tans. For instance, the ground work is a sage green, the stitch is an over-and-over stitch, as you can very clearly see from the illustration. In the lower figure the outside band is of a dull greenish blue; inside that follows a line of black. The next is old rose, then the figure is white, and inside is a bright blue figure with a black center. The second figure above is lighter, in the same colorings, and the center figure of it is pearl gray with a dark blue center. All the lines connecting these are black, the little squares are light old rose with blue centers. In the outer border is first a row of dull old blue, then a black line, then old rose and black again, then gray with a blue border, and the center figure a dull copper color.

These figures are repeated to any size desired.

Figure 3 is merely an illustration to demonstrate somewhat the working of Figure 1. You can see that the stitch is entirely over-and-over or satin stitch and plain outline, nothing else. I have suggested here a different figure from that used in our main illustration and two different bands for the outer edges. You may thus vary it, if you like to.

Little more can be said of the working or coloring, and I would only add that the woman who wishes them for her home must only consider to an extent the colorings of the rooms in which she uses them. Most any combinations of colors are appropriate and, though from reading it sounds as though rather gaudy combinations were used, the effect is very far from gaudy, as all of the colors are dull, what is termed "old" shades. As to the appropriateness of this work, it is used where any tapestries might be used, such as couch covers, draperies, sofa pillows, chair covers, and for tables, etc. It is both Indian and Oriental in style, and where the artistic is desired nothing could be more attractive. One woman friend of mine obtained the canvas for the hangings of her little room in that mercerized canvas used for gowns, and by dyeing her own stripes obtained the most wonderful shades at but little cost. Dull wools and mercerized threads may be had at any art needlework store, and it requires but little ingenuity to evolve the beautiful from these.

Construction Details of the Home

Entrances—Front and Interior Doors—Advantages of Sidelights

(Continued from the August Number)

THE design of the entrance should be distinctly in the adopted style of the house. A beautiful design for a colonial house is the so-called Venetian type (49). It gives a cheerful aspect to a house, has a broad open-faced welcome and admits an abundance of light to the hall. The lights can be leaded or divided with wooden sash bars into a number of different designs in lieu of those illustrated. For example: if more simplicity is desired, a design can be used for the transom light similar to design 43, and the side lights can be the same as in design 45. This design altered as suggested would go well with a Palladian window placed on the stairway at the opposite end of the hall. Much that has been said of design 49 can be applied to design 44, except that it would mate better with the Wyatt window, which is described in the article upon windows.

Let us emphasize this point of keeping all things in harmony. If the style adopted can be carried out in the furnishings of the house, so much the better, but at least keep the house itself exclusively in one style.

Design 43 is a century old Deerfield door, belonging to the class known as entablature doorways, which look especially well for a side driveway entrance or a front entrance where the porch is very high or does not exist, the door opening directly on the street. The door knocker shown is no longer of practical use in this day of modern invention, but it serves to bring up memories of our grandparents and is often a very pretty

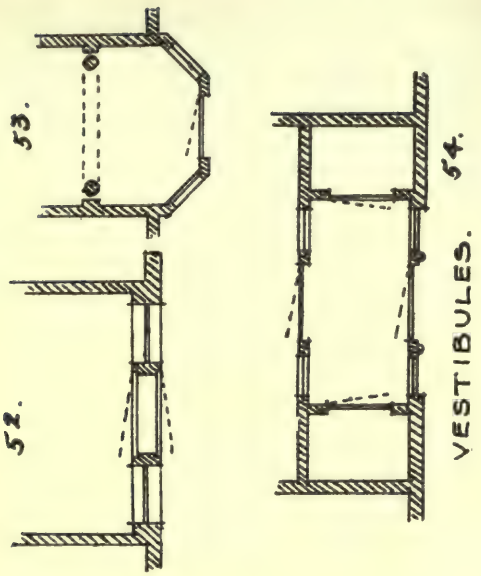


SUGGESTIONS FOR FRONT AND INTERIOR DOORS

ornament. To be too utilitarian or conventional often loses a home the sentimental qualities that make it inviting and homelike, which is the principal result to be obtained. Number 50 is a good design, and design 51 would make a neat cottage door if in keeping with the windows divided likewise into diamond lights. Design 48 would make a very pretty doorway to a side porch, opening into the garden, or, better still, between a room and the conservatory. Design 45 would make an attractive entrance to a small surburban cottage having no front porch. The columns should set out from the house from two to six feet; if not out more than three feet it would look well to put a lattice, similar to that in the pediment, up the sides between the columns and wall; these to grow vines on. A pretty side or rear doorway, that was a favorite with our grandparents, is made by placing a vertical lattice about thirty inches wide extending outward on each side of the door and across the top; overgrowing the whole with old-fashioned roses, transforming by nature's aid a mere hole in the wall into a beautiful entrance with the added fragrance of an effusion of flowers.

We cannot limit the exact dimensions of a front entrance, depending as it does upon so many conditions. Its proportions therefore can only be spoken of in a general way.

It must not be narrow or of a stingy appearance, for that would be the first impression one would then receive of the



owner. It should rather be broad and generous in its aspect, even to a fault. Over the front entrance there should always be some kind of shelter to protect one while awaiting the opening of the door, for this of itself expresses congenality. Make that shelter or porch appear for utility rather than a means for expressing one's fastidiousness by excessive ornament, bearing in mind the charm of simple beauty.

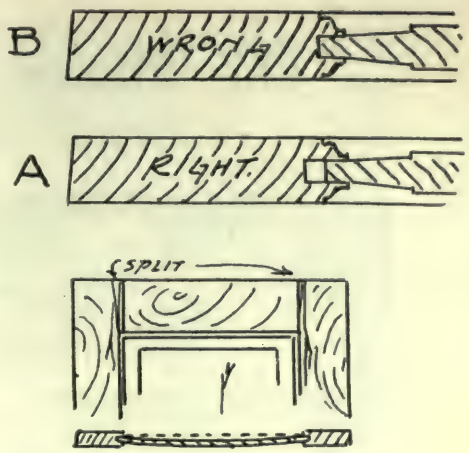
The home builder who can not or does not desire to go to too much expense for his entrance can find many good suggestions in designs 30 to 35; designs 30, 32 and 34 being particularly commended for this simple beauty and dignity. Doors 30, 31 and 42 can have either wood or glass panels as desired. If there are no sidelight or windows in the hall, it is best to admit light through the door in some one of the many ways shown. The lights can be made of crystalline or other obscure glass if desired; but for the sake of looks it is best to use clear, plain or bevel plate glass for the door lights, with plate (preferred) or double-strength glass for the transom and side lights. If the outside trim of your house is painted and the inside finished in natural woods, make the door of the natural wood finish on both sides; the outside panes, sash and casing of the entrance like the trim, but the inside casings, etc., the same as the door and other inside finish. Never "mix" on the door, making the inside of one color or wood and the outside another, as it cheapens it in appearance.

The vestibule is necessarily a part of the entrance. As its size, shape and location depend entirely upon the arrangement of the plan, a few remarks will suffice. The usual form is a rectangular box a little wider than the entrance, but it is best to make it more of an ornament or of some use other than a mere place to pass through, and afford double doors to the weather. A small entrance vestibule is an eternal nuisance. A vestibule should be at least large enough to accommodate both the guest and the hostess at the same time. If it is not, the inside door must be left open to back in while her guest enters. She must then gently push the guest to one side while she passes her and goes and shuts the open outside door; she is then at liberty to return and shake hands. Not making a very good first impression.

Plan 54 is a splendid arrangement, the interior entrance being a repeat of the exterior, while on both sides of the vestibule are coat closets, one each for ladies and gentlemen. The doors of these closets should have a minor panel of two-thirds or all of the length. Do not project a square box vestibule out on the porch. It suggests a cramped condition of the plan within, being, as it is, fairly crowded out. Plan 53 it a pretty and unique idea, and would in no way transgress the above rule, being merely a bay. Plan 52 is a good substitute for a vestibule. Make the partition here twelve inches thick to prevent a hitting of the knobs. Make the outside storm door a counterpart of the permanent one, and replace it in summer with a screen door.

After having studied the front door problem and having arrived at a conclusion of what is desired, due attention must be given to the interior doors that they may conform in design and be in harmony with the entrance door. For example: if design 34 is used for the entrance, design 41 should be used for the interior, or if design 50 or 51 are used for the entrance door, design 36 or 38 should be used for interior doors. If one is patriotically inclined they can use design 40. This type of door is used in the White House. Design 46 makes a good china closet door; placing shelves as indicated by the dotted lines one gets a glimpse of the dainty ware on four shelves; below the shelves behind the door build in drawers for table linen, utensils, etc.

In conclusion: For sliding doors use door hangers that are held to the track and can not jump off. Use three strong hinges on outside door, and two hinges for interior doors. Have your hardware in harmony with finish and design of entrance and other doors and windows. Cylinder locks are best. Veneered doors are better than solid doors if made right, and a better grain of wood can be obtained. Make side and top styles to panel door five inches; bottom rail the height of baseboard; muntins between panels not less than three and a half inches. In wide doors having considerable glass, top and side styles should be six inches for strength. Thickness of veneered doors, two and a quarter inches, solid doors inch and three-quarters or inch and three-eighths thick. Provide pantry doors with ball-bearing swinging hinges and metal push plates on both sides. It is preferable to make the pantry doors an inch and a half thick. In the average house, the best width for front doors is three feet to three feet six inches; for interior doors, two feet six inches to three feet. Keep casings at the top of doors on a line with top window casings. Usual height for interior doors is seven feet, but can vary. All doors on one floor, however, should be made the same height. Bedroom and closet doors are sometimes two feet six inches by six feet six inches. Height of entrance doors varies with the design, but it is best when possible to make them the same height as the interior doors.



The front door of a very fine house was shown on the working drawings as at "A," allowing a space of half an inch in the style for the "come and go" of the broad oak panel, but the door had been first built as at "B." The panel expanded with the result indicated. This condition lasted for some time, when the oak styles, no longer able to stand the strain, let go with a crack like a pistol, the side styles separating from the top and bottom ones; the door was a wreck and had to be made over.

The House Without Steps

By MRS. KATE RANDALL



A CHARMING LOW HOUSE WITHOUT STEPS

THE house without steps or visible foundations is just now much in vogue. There can be no question of dampness in these houses, for they are not in reality as low as they appear, but have fairly high foundations. The ground about them is so skillfully graded that the effect is secured, and they have no steps. The houses illustrated show the same idea differently expressed. "Bay Cottage" is shingled, with gray stain and white trim. The others are plastered. "Hillside Home" is dark, the trimmings a shade darker than the plaster. The very charming low house has white trimmings on almost white plaster. All stand comparatively near the street, utilizing as much as possible of the depth of the lots for the very formal gardens in the rear. The fronts are kept very simple. A broad walk, at the side, leads from the street to the front door, and the lawns are almost unbroken by shrubbery. The floor plans of the two story houses are quite different, but both carry out the same idea of making the rear garden a decorative feature of the living rooms. Being on the same level, this is very charmingly accomplished by wide glass doors opening onto the wide brick-paved rear porch or court. At Bay Cottage a broad walk, paved with the same old-fashioned large red brick, leads straight through the garden to a pergola, which occupies the whole width of the lot at the back. This is covered with vines and has a background of tall shrubs, and at one side stands the great bay tree which gives the cottage its name. As in front of the house, the turf in the garden is almost unbroken, but on either side of the walk, at precise intervals, stand small bay trees in tubs. The sides of the lot are screened by shrubs and lattice, and vines shut off the kitchen. The privacy is almost perfect, and the simplicity and lack of tiresome details make it one of the most restful spots in the city. The garden of Hillside Home, while still very formal, is quite different. Down through



"HILLSIDE HOME" HAS A GARDEN AT REAR WITH SWEET OLD-FASHIONED FLOWERS

the center, on either side of the broad brick walk, are wide borders of sweet old-fashioned flowers. Everything that grows in the way of sweet bulbs and shrubs and flowers, and back of these, low trees, so the walk is quite shut in. At the end, against the high brick wall which surrounds the whole garden, and under a great pine tree, is built a low seat of the brick. This is a favorite resting place for the family. Somewhere beyond the shrubs and hedges there are rose gardens and kitchen beds, and work and worry, too, but they never reach this sunny walk, the vista of which, from the library windows, is charming. I have gone somewhat into the details of these gardens, because little things mean so much in building, and the charm of these homes depends greatly on these formal gardens.

Both houses are painted entirely white inside, and both, alike, have large living rooms or libraries. In Hillside Home low open book shelves line the walls, only a small case on either side of the high mantel having glass doors. At the side, above the shelves, are rows of small casement windows, but at the back glass doors and deep windows give us a vista of the garden. The walls, of rough plaster, are tinted in oil colors a tan, with cream frieze and ceiling. Above the fireplace hangs a large picture of the van-



"BAY COTTAGE" OF GRAY STAINED SHINGLES AND WHITE TRIM

ishing poppy fields of California, its golden beauty harmonizing well with the autumn-colored walls. The high white wainscoting of the dining room is beautifully paneled and the wall a deep blue. The wide frieze has a most graceful design of white peacocks against a light blue background. Glass cupboards, reaching nearly to the ceiling, fill the spaces on either side of the very wide casement windows.

The bedrooms are very simple, mostly in flowered papers or delicate tints. Two have high white wainscoting. We noticed the absence of the unhygienic washstands and the substitution of the old-fashioned bowl and pitcher, one a priceless blue Canton set. A pretty idea for a young girl's room was a "hat cupboard." Her writing desk stood in the center of one of the side walls, and in the middle of the space on either side of the desk were built-in cupboards, reaching from floor to frieze. The shelves were just deep enough to accommodate the most up-to-date hat. The doors, when closed, resembled panels in the wall, and the same panel effect was used on the other side wall. The bathrooms were simply finished in Alpine side walls and ceilings.

The library and dining room in Bay Cottage are finished alike, as they are almost one room. The rough plaster is changeable brown in effect. Seen nearer, one would conclude brown and green oil paint had been laid on the pallet and half mixed. The thin wash of this, when on the wall, has a very pretty changeable effect. The kitchens were lined with most fascinating cupboards and drawers for everything. Those for bread and cake seemed to be the first bread and cake boxes we had ever seen that really had an abiding place of their own.

One feature of Bay Cottage struck us as very nice. The servants' dining room, or sitting room, as well as the kitchen, opened on a small brick-paved pergola. This had, at one side, two built-in high-backed settees, set on either side of a stationary table, all painted white. Vines covered the pretty pergola, and the table was set for "tea" as we passed the door. It looked so very comfortable that we wondered why others did not more often have such an arrangement for those who served them so well. In fact, both houses, though simple and inexpensive, gave us many things to consider.

The "Low House" is new—not finished, either inside or out.



GATE TO KITCHEN ENTRANCE, "BAY COTTAGE"



A TILE FIREPLACE IN LIVING-ROOM



A DINING ROOM FINISHED IN ENGLISH OAK
(See Exterior on Page 169)

Designs for the Home-Builder

RENEWED interest in home-building is noted after the lull of midsummer. Business considerations which have been somewhat problematical are now upon a more definite basis and one may now formulate plans with a proper degree of certainty as to the outcome.

The designs beginning with this carefully studied house after Spanish Mission motives will be found of special interest.

Design B 275.

This residence is on somewhat original lines, suggesting the Spanish type. The first story is veneered in mottled brick.

The wide belt course, cornice and window frames are stained a rich brown in excellent contrast with the cream colored stucco of the second story. Every fifth course of the roof shingles is doubled for effect and the whole stained a rich green.

The main rooms of first floor are finished in oak with beamed ceilings and the living room contains an ample fireplace. The kitchen appointments are very complete in natural birch finish and a feature of this portion of the house is the maid's sitting room.

The second story is finished in birch and white enamel and contains four chambers, two bath rooms, a dressing room and numerous closets. The back stair extends from basement to attic, which contains billiard room and store room. Hot water heat. Size 40 ft. by 42 ft. This house is very complete in every detail and the architect states that the cost is $12,000.

Design B 276.

This house of cement stucco on expanded metal lath is one of the most successful in its style. The broad presentation toward the street gives it a generous home-like appearance which is emphasized by the wide entrance porch. The contrast of white cement trimmings and gray stucco is very pleasing.

The plan is well arranged and important features such as fireplace, stairway and sideboard have been so placed that vistas are produced through the large openings of the rooms. The stairs are in combination from hall and kitchen to second story.

The living room hall and den are finished in birch and the dining room with paneled wainscot 6 ft. 6 in. high in quartered oak. The kitchen portion is in natural birch. There are four good chambers, a dressing room and a bath on the second floor, and two chambers with large room in attic, all finished in white enamel.

The billiard room occupies the whole front portion of the basement and contains a large fireplace. The dining room fireplace is of polished Kasota stone. Hot water is used for heating. Size of house, 34 ft., 6 in. square, without projections of porch, etc.

The cost was $10,500 for the house as built with beamed ceilings in living and dining rooms. The house is very complete and with simpler furnishings a considerable saving could be made.

Design B 277.

This is a small cottage 24x26 feet, exclusive of piazza. It is snug, compact, no waste space, economical to build and artistic in appearance.

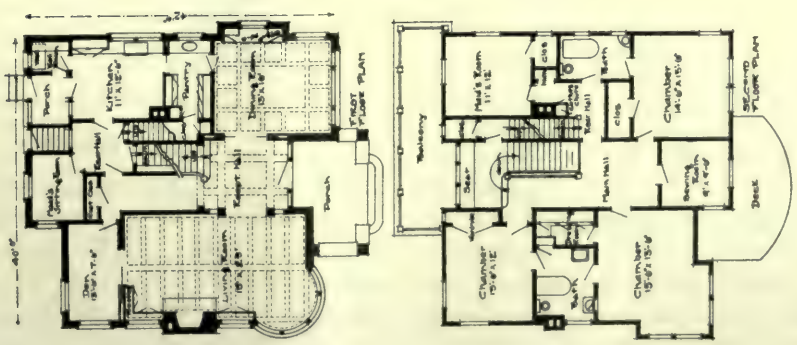
There are three rooms on the first floor and three on the second. The first story is 9 ft. high and the second story



—Rollin S. Tuttle, Architect

A Residence Suggesting the Spanish Type

DESIGN B 275



8 ft. 6 in. high. There is one large living room 11 ft. 6 in. by 22 ft. with a pretty Dutch window lighting at the side with wide shelf for plants. It is designed to have the timbers overhead show in this living room and stained dark Flemish color.

The kitchen is convenient with a covered entry way in back, with space for refrigerator and good cellar with cement floor. The floors of the first story and finish are hardwood and the second story is finished in natural Norway or southern pine.

The front piazza is supported by two large stone columns, one on either corner, of rock faced quarry or field stone, laid in cement and the joints neatly pointed. Timber brackets built in the top of the stone column aid in the support of the roof.

The roof is double pitched and covered with shingles; also the gables are designed to be shingled.

The architect estimates that this cottage can be built complete, exclusive of heating and plumbing, for $2,200. The first story is covered with narrow siding, but it would also look well in shingles or cement; the cost would be a little more than siding.

The piazza across the front is large in size and the main roof is brought forward over it. This gives additional space for the second story rooms with the roof stained in dark color. The lower story will look best to be either white or some light shade of color.

Design B 278.

This is a very sensible little house in which the owner gets the worth of his money because every inch is put to use. The lower story is of stucco and the upper story is shingles with a rough brick chimney. Unfortunately the limb of the tree obscures the break in the roof occasioned by the front windows, for this feature helps the appearance of the house very much.

The living room has a beamed ceiling, a brick fireplace, a columned opening to dining room and the stairway ascends at one end. A short flight of stairs combine at the landing, from the kitchen, with the main stair.

The finish and floor of main rooms are of oak, birch in kitchen and white enamel on the second floor.

Note the good arrangement of sideboard, kitchen cupboard, ice box, etc., and the sleeping porch. Hot water heat. Size 24 ft. by 28 ft., without porches. Architect's estimate $3,800.

Design B 279.

This house should be carefully studied by the home builder for it is very picturesque in its outlines and has a well arranged plan. The first story exterior is of stucco with shingled walls above and half-timber work in the dormers. The porch treatment is unique and pleasing. In the plan note the size of living room with its splendid fireplace, the good arrangement of stair hall, dining room and kitchen with ready access to front door.

The refrigerator is iced from outside and is located in the pantry. English oak would be an excellent finish for the principal rooms of first story with natural hard pine in kitchen part and birch and white enamel for second story. There are three very good chambers, a bath room and the linen closet is large enough to make an excellent sewing room. Hot water heat. Size 34 ft. by 24 ft. The architect's estimate of cost is $4,200.

Design B 280.

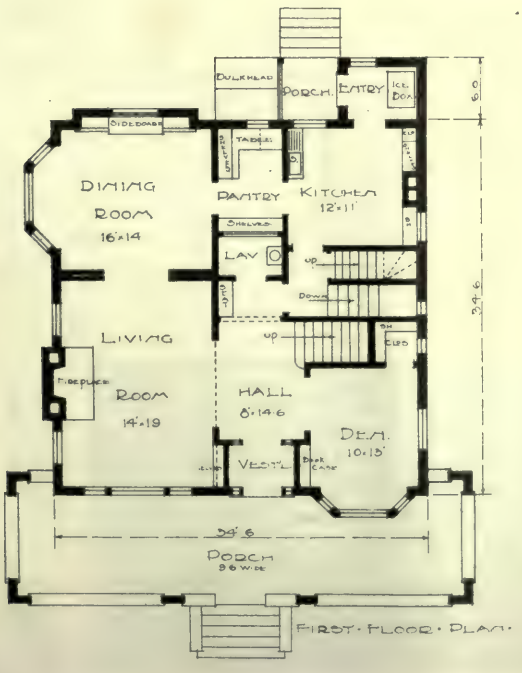
This little bungalow is very pleasing in its details, being somewhat on the Craftsman order. The approach and width of steps gives a very hospitable appearance to the whole structure. A feature of the plan is the large living

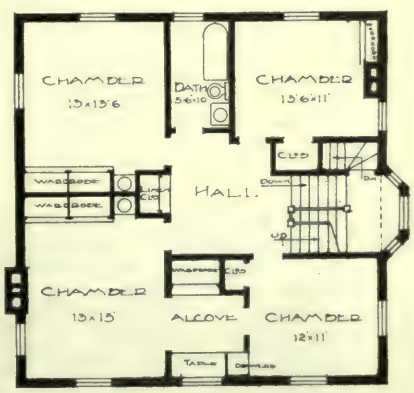


—Kees & Colburn, Architects

Excellent Example of "Mission" Architecture

DESIGN B 276





room lighted on two sides and containing a brick fireplace. The dining room is separated by sliding doors and contains a china cupboard and pleasing bay window. The kitchen is fitted up with cupboards, gas range, sink, etc., and opens upon a rear porch containing refrigerator. Two chambers and a bath room with linen closet are situated upon the private hall. The finish of the living and dining room and kitchen is of Georgia pine. The chamber portion is in white enamel. Georgia pine floors throughout.

The height of the story is 9 ft. 6 in. The attic is for ventilation only. No heating plant is contemplated or basement. The dimensions are 39 feet wide and 32 feet deep. The estimated cost, including plumbing, is $2,600.

Design B 281.

Here is a cottage which is laid out on a somewhat pretentious scale, the rooms all being of generous size with a central hall after the old colonial idea. The principal rooms are connected by wide openings which increase the apparent size of the whole floor. The sliding doors between chamber and living room afford privacy when desired. This room might be provided with a wall bed and used for other purposes in the day time. Note the sideboard and the excellent arrangement of kitchen features. Birch is used for floors and finish except for finish in bath room and chamber which is white enamel. Furnace heat.

The exterior may be sided, shingled or of stucco with but trifling variation in the cost. The size of the porch is a special feature and the simplicity of the detail an item in keeping down the cost. Size 35 ft. by 30 ft. 6 in. Architect's estimate of cost as described, $2,600.

Design B 282.

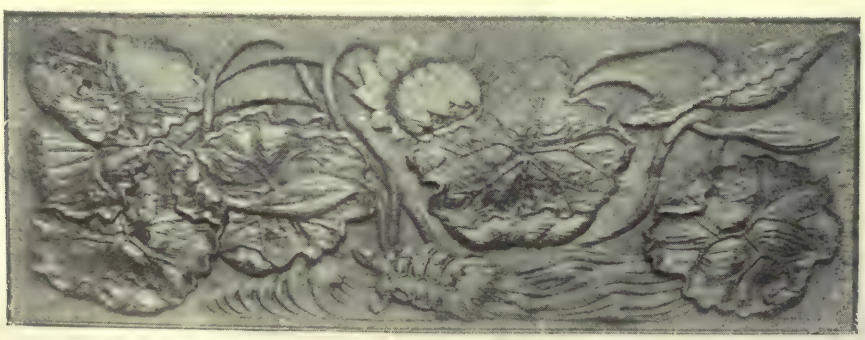
A clean, attractive design where the exterior is intended to be of clapboards, laid 2½ inches to the weather, or in this design, alternate courses or two courses 4½ inches to the weather followed by one 2½ inches to the weather, would be effective.

The plan is certainly ideal and every inch of space available. Direct passageway from kitchen to front door without passing through any other room is secured and while the dining room could easily be enlarged by omitting the toilet off the rear of same and building pantry out to the rear a little more, it is a very attractive room as at present designed.

There is a full basement with hot water heater, laundry, etc., also a good attic, reached by a stair case up over main stair way and a good room could be finished off here if desired.

The finish of the main rooms of the house is intended to be of oak or birch with hardwood floors. The balance to be of pine, fir or cypress, painted or stained.

Cost $4,100. Width 28 ft. Depth 33 ft. Height of basement 7 ft., first story 9 ft. 5 in., second story 8 ft. 3 in.





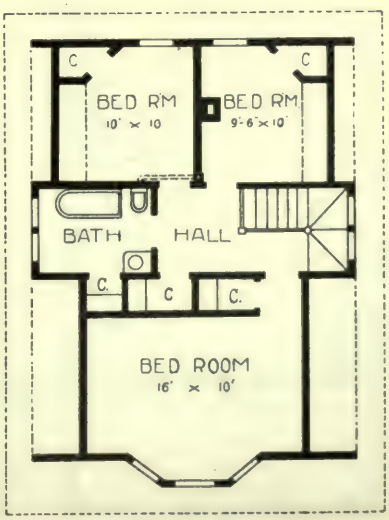
—Chas. S. Sedgwick, Architect

A Gambrel Roof with Half Timbers

DESIGN B 277



FIRST FLOOR PLAN



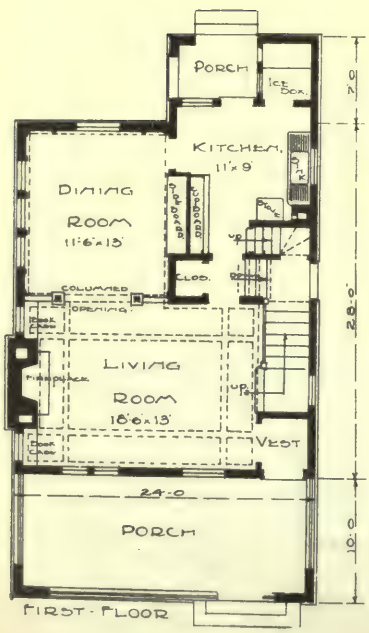
SECOND FLOOR PLAN

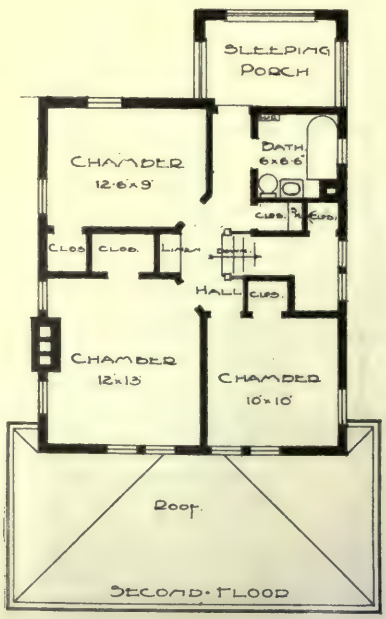


—Dorr & Dorr, Architects

A Quiet Exterior in Shingles and Stucco

DESIGN B 278



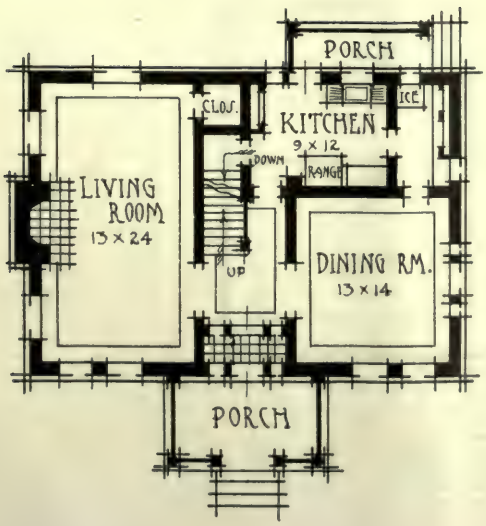


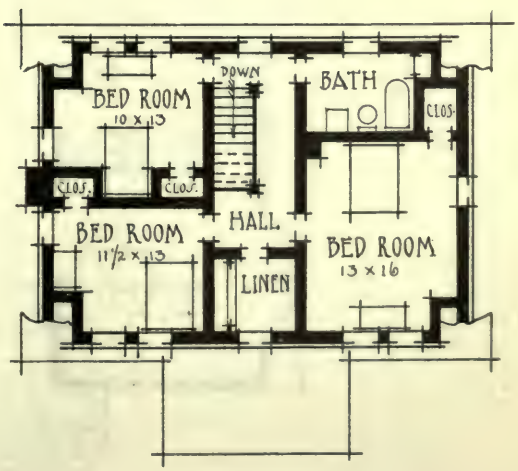


—John Henry Newson, Architect

An English House of Good Design

DESIGN B 279

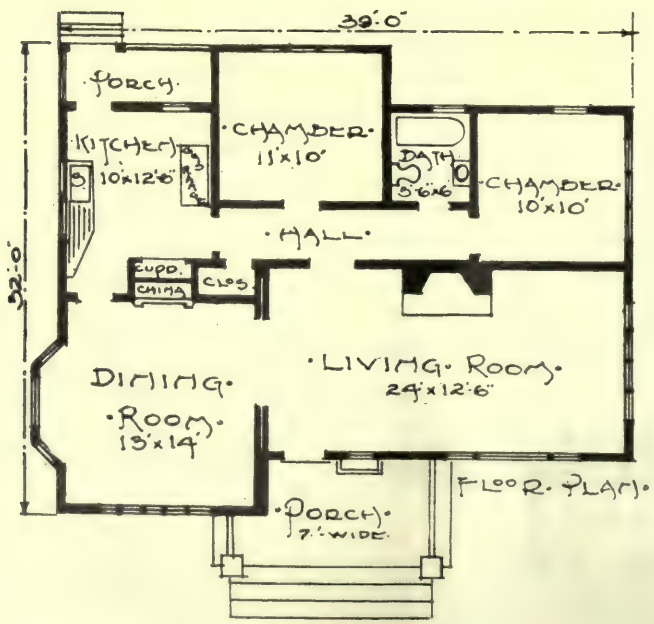






An Artistic Western Bungalow

DESIGN B 280

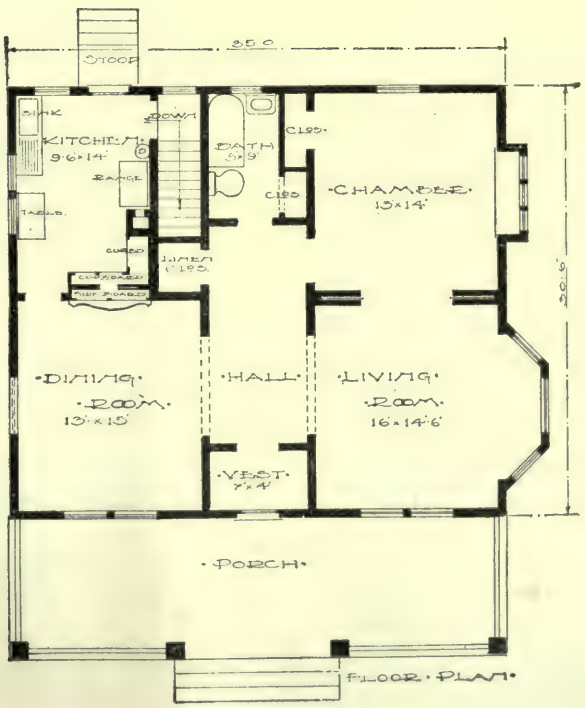




—Arthur C. Clausen, Architect

On Very Simple Lines

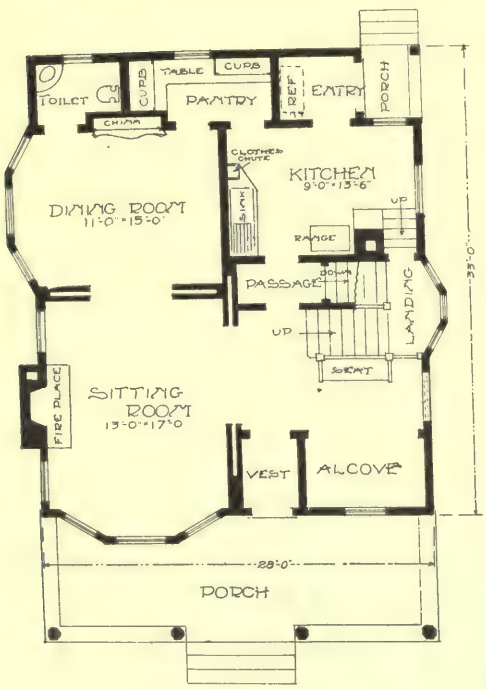
DESIGN B 281



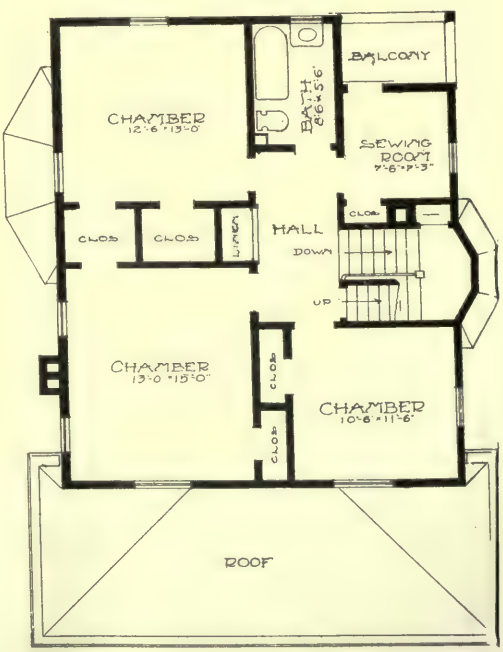


A Good House of Wood

DESIGN B 282



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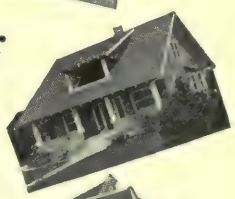
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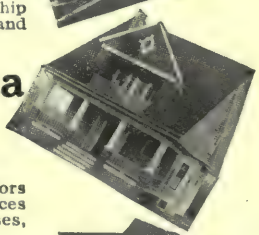


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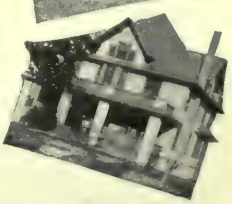
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The Prevalence of Pink.

EVERYWHERE, in wall papers and textiles, one notices the prevalence of pink. There is naturally a great variety of shades, ranging from delicate salmon to old rose in its various tones, but there is a great deal of old-fashioned rose pink. The fact is that a pink wall is an admirable background for many of the popular flowered chintzes and cretonnes. For the average room of moderate size a flowered paper is a little too much of a good thing, if the pattern is large, and the floral paper in Dresden style is apt to be insignificant. Then, too, a flowered, or, for that matter, any striking paper is a poor background for anything, least of all for another flowered material. So the plain pink, or buff, or yellow or gray green ground has come into vogue, and is charming in combination with white woodwork and delicate cretonnes.

Some of the best of the pink papers are in a deep tone crossed by fine lines of white, at once modifying the color and giving a textile effect. There are some beautiful brocade papers in pink, but the effect is rather too sumptuous for the average room, although charming use can be made of them in a small reception room, or in a recess off a room decorated in more sober tints.

Pink and Gray.

The combination of a delicate pink and French gray is a very good one. In combining gray with flowered materials it is essential to select those that have a clear white ground. Very many of the best cretonnes, notably the English ones have a cream or ivory ground, which makes them out of the question for the purpose. On the other hand, most of the cotton taffetas have pure white grounds, and their designs are unusually good. The revival of the taste for pink and gray is so new that there are few if any materials with gray grounds.

Gray Paint for Renovated Furniture.

There are many "parlor suits" surviving in excellent condition, yet more or less eye-sores to modern taste, which in clever hands have vast possibilities. Generally these are of the sort which had walnut or rosewood frames and haircloth or rep upholstery, of the vintage of the Civil War, and often the shapes, usually on French lines, are excellent. If glued on ornaments are removed and the wood reduced to its original state, such furniture can be done over with three thin coats of delicate gray paint, with a finishing coat of enamel, and be really beautiful, when upholstered with a French toile or with cretonne. Any person with any knack at all can do the painting, and an upholsterer working by the day can finish it up.

Some furniture of the sort is more or less carved and may be done in two shades of grayish white, the design of the carving picked out in the darker tone. If one has any idea of attempting such work it is well to examine fine French furniture in a good shop, with the end of knowing just how the thing ought to look.

Draping a Cot.

The single width cot seems to have superseded the folding bed to a great extent, but it brings with it its own problems. It must have some sort of a drapery when it is not in use and the mattress has a great trick of slipping about when the cot is occupied.

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The mode and material for the drapery of course differs with the character of the room in which the cot stands. If it is in a living room, the material must be heavy, something which will not tumble, and whose color will harmonize with the furnishings of the room. Of these there is a wide choice. An Oriental Bagdad, of good coloring is a most satisfactory possession, but hardly wide enough for the average cot. The machine made imitations are generally extremely ugly. Moreover Oriental things do not seem to fit in with modern furnishings as well as one would think they ought to. The pillow which is the apple of your eye is somehow out of harmony with a Bagdad or a Kis-Kelim. Nor does your bric-a-brac come out any better. An artistic tapestry, of the sort called **petit-point,** can be had in regularly shaped couch covers, or can be bought by the yard, and its edges finished with a narrow plain or tasseled gimp. A length of three yards and a half is needed. Craftsman canvas, or Arras cloth are both good, the former heavier and so more desirable. A judicious pinning here and there is recommended. Heavy mercerized tapestry makes a satisfactory cover, but is not to be advised for a sunny place, as it fades badly, like all cotton materials.

In making a cover of any of these materials it is often advisable instead of letting it hang like a tablecloth, to cut out squares at each of the front corners, sewing the two cut edges together. This method prevents the cover from dragging and its edges are not a trap to unwary feet. Or the cover can be allowed to hang loose, but the corners rounded so that they do not quite touch the floor.

Cretonne, which is generally used for covers in bed rooms, should always be fitted. The usual way is to fit a piece to the top of the mattress, edging it with a gathered frill, just touching the floor. A more shipshape way is to edge the top with a strip of the material about nine inches wide, with no fullness at the corners, welting the seam. To the lower edge of this strip attach a box pleated frill, coming just to the floor. Rug pins at the four corners of the cover, with the other halves on the frame of the cot, will hold the whole nicely in place.

To remedy the uncomfortable slipping of the mattress of a cot narrow strips of ticking can be attached to each corner, fastening under the frame with snap hooks, and will not materially interfere with the tucking up. The snap hook has many uses besides that of closing plackets.

Adam Furniture.

Probably a great many people notice the white or light colored furniture, delicately painted in classic designs, without realizing that it copies the work of the Adam Brothers, who in their time, the latter half of the eighteenth century, were as eminent in their way as Chippendale was in his. They were members of a distinguished Scottish family, friends and neighbors of Sir Walter Scott, and were responsible for the interiors of a great number of the London houses of the period. They not only decorated the rooms, but made furniture specially for them. In addition to the ordinary painted decoration this furniture was often enriched by the insertion of oval or circular paintings of classical scenes, done by artists of distinction. The modern reproductions are extremely dainty, and fall under the category of luxuries most decidedly. Generally the frames are painted, but some pieces come in satin wood or in white mahogany. Usually they have cane seats and if they are upholstered the material used is striped in delicate colors.

Most of the Adam rooms were paneled in white painted wood, with polished, inlaid floors and delicately moulded ceilings. While exact reproductions of all their features would be out of the question in any but the most expensive houses, they are rich in decorative suggestions, and are generally accepted as the finest expression of the classical style in interior decoration.

New Curtains.

Tabriz lace is something new in the way of curtains. The material is a fine filet net, patterned all over, and with a woven border and scalloped edge. The body of the curtain is ecru, an edge of about three inches is printed in a delicate plain color, blue, pink, or lavender and there is another band of the color further in. They cost $3.50 a pair, and there is quite a variety of patterns.

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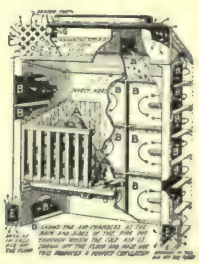
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Cretan Madras, with a pure white ground and an embroidered design in a variety of rather light colored silks, can now be had by the yard, from $1.25 up. There is a narrow border on each edge similar to that used on the curtains and it is an excellent material for vestibule windows and other narrow spaces. It is not transparent, but is thin enough not to exclude the light perceptibly. It is effectively used for pillow covers over a lining of white or color.

A mercerized curtain material, which is heavy enough to use for portieres in some places, is in very nearly solid color, dark old rose, blue, green and golden brown. The design is elaborately woven and a small amount of black is introduced to accentuate it. The effect is very silky, the price, $1.25 a yard, 45 inches wide.

Portieres of light colored, gray-brown canvas are hemstitched and ornamented with drawn work and cost $7.00 a pair. The material seems to be cotton with a linen finish, and they are probably washable.

For a hanging in a single door, or in a dim corner, where strong color is needed, the printed linens, in large patterns, with a well covered ground, are admirable, and more in harmony with a living room than Java print or cretonne. Coarse shot, or small dress weights, sewed into the hem improve the folds of such a hanging, and the best finish is a line of furniture gimp, covering the raw edges turned up on the right side. These linens cost $2.50 a yard, 50 inches wide, and come in the well-known parrot pattern and in floral and tapestry designs. Those combining blues and greens are specially good.


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New Finishes in Reed Furniture.

At least the name, Baronial, is recent, as applied to a rather light brown finish much seen in reed and grass furniture. This is the newest color in grass furniture and harmonizes well with the popular Jacobean furniture. It is good in combination with rose or blue tones.

Verdigris green is the color of bronze which has been buried in the earth, the same as the Pompeian finish which is applied to hardwood, and is seen in reed chairs and settles. The tone is a curious blending of green, gray and red. It does not harmonize with the colors of the cretonnes which are shown with it, but would probably be successful with a very gray medium green, in corduroy or cotton velvet, or with some of the liberty velvets which combine gray greens and mellow pinks.

The silver gray wicker furniture is not new by any means, but is specially successful with some of the late designs in cretonnes. One English cretonne, in particular seems to have been made for gray furniture, a scattering of bright colored floral sprays on a ground of stripes, a third of an inch in width in two delicate tones of gray.

Nested Tables.

A nest of tables is extremely convenient, in various social exigencies, and for small rooms. They have been common enough for a long time in mahogany or oak, and the New England sea captains of a past generation used to bring home sets of lacquered tables. The last material in which they make their appearance is Baronial wicker, with oak tops in a dull finish which will not scratch. They are rather larger than usual, and the nest costs $18.75.



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ANSWERS TO QUESTIONS
ON INTERIOR DECORATION

Editor's Note.—The courtesies of our Correspondence Department are extended to all readers of *Keith's Magazine*. Inquiries pertaining to the decoration and furnishing of the home will be given the attention of an expert.

Letters intended for answer in this column should be addressed to Decoration and Furnishing Department, and be accompanied by a diagram of floor plan. Letters enclosing return postage will be answered by mail. Such replies as are of general interest will be published in these columns.

J. D. G.—Please advise in regard to inclosed bungalow design. Living room across entire front of house, facing west; size of room, 28 feet by 13½ feet, having north, south and west leaded glass casement windows, ten in all. Height of ceiling, 9½ feet. Woodwork throughout in yellow pine. Furniture in golden oak. Rugs in old ivory, olive green, old rose and black. Wide opening into the dining room, which is 14x14, with south leaded glass triple window. Rug in old red, blue and green. Furniture will be bought. Have madras curtains in old blue, old rose and gray which I wish to use at windows. Would a gray tinted wall look well? Bedroom 10x12, with north windows. Circassian walnut dresser and brass bed. Rug very bright in red, terra cotta, etc.

J. D. G.—Ans: In general, a decorator's advice to you would be to stain the yellow pine woodwork to be used with golden oak furniture a brown tone. We see, however, possibilities for a very charming interior, taking the soft colorings of your rugs as a starting point. If this were our bungalow, we should paint the yellow pine of the living room a soft shade of dull olive green, and should use a wall paper slightly lighter in tone of the same green. There are papers with a texture something like wavy cloth, not absolutely plain, yet quite as satisfactory as backgrounds. The ceiling with this wall and woodwork should be old ivory. The rugs in old ivory, olive green and rose and black will be in perfect harmony, and the golden oak furniture may be supplemented with a couch or settee in wicker, two easy chairs and a round table—all these wicker pieces stained a soft green and upholstered in rose and green cretonne. The south dining room opening from this, with its row of south windows, should have the woodwork painted old ivory and mahogany furniture. The blue, rose and gray madras will be delightful at the windows, but the walls should be a rich blue below the plate shelf, with blue and green on a grayish white ground above, either foliage or a landscape frieze.

With casement windows opening inside the room, shades must be adjusted on outside of casing. They can be drawn down when casements are closed. Only slight draperies on the window sash itself can be used. These are pushed well back to one side.

The stain for weather boarding is usually mixed by the painter on the job, but ordinary shingle stain having sufficient oil in its composition can be used.

The north chamber with the red rug could have walls a warm gray with a frieze of red poinsettias and gray woodwork. The northeast chamber would be pretty in yellow and white.

H. M. D.—Living and dining rooms finished in chestnut, stained brown; fireplace is of mottled pinkish brown brick, 5 feet high by 6 feet wide; floors will be beach. Piano is mahogany, and most of living room furniture is leather (black) and golden oak. We wish to build in a couch under the horizontal window in living room, and upholster in leather. We have in mind a nut brown paper for this room and dark blue for dining room; dining room furniture is golden oak; dining room ceiling will be beamed. Suggestions as to decorations of walls and treatment of windows will be appreciated. The front bedrooms, second floor, will be finished in maple, with two-panel birch doors. We wish to treat these rooms so as to preserve or show the natural grain of the wood. Please suggest treatment of this woodwork and of walls, and window draperies to harmonize with same.

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Exterior of the house is of cypress siding, sawn side out, up to second story; window belt is laid 6½ inches to weather, belt 8 inches, above 3½ inches to weather; stained reddish brown, trimmed in cream. Brick columns, cement floor veranda. All casement windows open out. Cornice is 3 feet 6 inches. We want interior to harmonize or bear out exterior. We have not stained the chestnut interior.

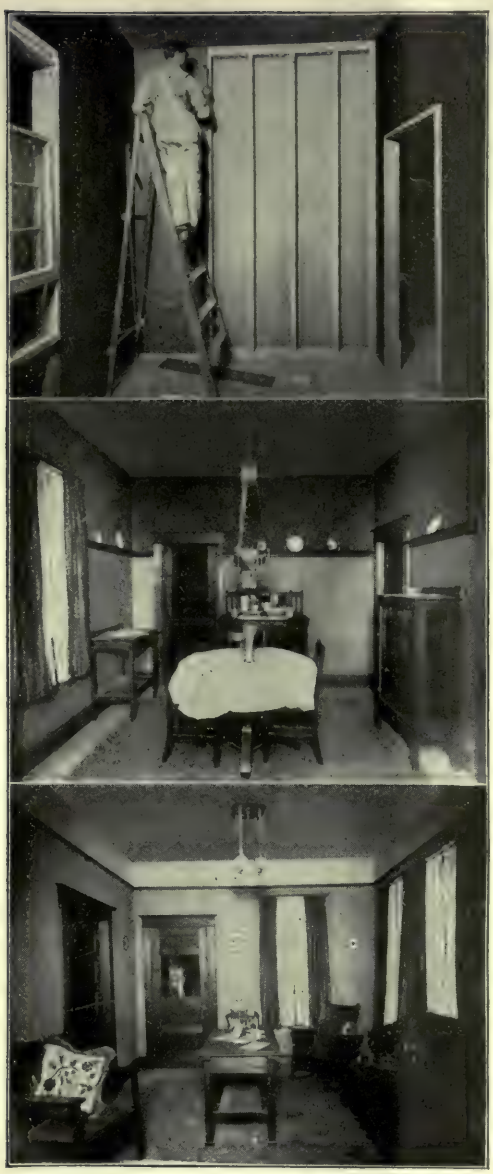
H. M. D.—Ans: Your chestnut is one of the few woods which are at their best without stain. Or at least, we should advise that it be only very slightly stained. If left natural and well rubbed and polished, it is very beautiful. A "nut brown" wall, however, is not just right. There are two-toned papers in browns that are both golden, yet with a pinkish tinge, that would exactly suit this wood. The floor should be stained a darker brown, with brown and tan rug. The "golden oak" is a pity. Do not upholster the window seat in leather, but in tapestry that shows soft browns, dull rose and greens.

The delft blue wall in the dining room will be excellent with this wood, with ceiling between beams antique ivory. The mixture of woods in bedrooms is difficult to manage. It would be much better to have all birch. The only thing to do is to finish natural. The birch doors will, of course, be darker than the maple. Stains do not hide the natural grain of wood unless applied too heavily. With this hardwood in natural finish, soft dull blues or greens are the best to use on the walls of the south rooms. The northeast room would be good with a pale ecru wall and curtains and furnishings of gay, bright chintz. Casement windows must be treated very simply. Fine cheese cloth is a good material. It can have slight stencil decorations in color, or be finished with narrow inch-wide ruffles. The curtains must hang on the window sash itself, if the casement opens inside, on small brass rods.

C. P.—I enclose a diagram of three rooms aside from kitchen on first floor. Of these I'm especially perplexed about the parlor and dining room. It is a new house, two coats of plaster, the woodwork is in white pine, some yellow pine trimming, not finished yet. Would you finish it in natural oil or some stain and varnish? My piano is walnut, other parlor furniture is golden oak. My dining room furniture is all marred, so that I want to refinish it. What would you suggest? If it is not too incorrect, we want the woodwork left in its natural color. We want to calcimine the walls. We do not want a plate rail (have a burnt-wood plate rack), but have thought of using picture moulding in both rooms. Have olive green portieres, and have thought of using a golden brown for dining room walls and a lighter brown or ecru in parlor. Have you other suggestions? Have net curtains for parlor, but none for dining room, and have not a rug for either room. What would you suggest for vestibule and bedroom walls? Also how to curtain the bedroom windows, the bed being white enamel with brass trimmings. Have no dresser or rug. What would be appropriate?

C. P.—Ans: It would be a pity, we think, to finish the pine trim natural. In the dining room with its large group of south windows a very pretty effect could be had by staining the pine woodwork with bog oak stain with Mission finish. When first put on it is quite green, but changes to beautiful tones of brownish green, according to the grain of the wood. Then have your dining room furniture refinished dark brown and get a green and brown rug. The wall can be tinted a very light tone of golden brown. Yes, you can put a picture moulding in the angle. The parlor wall in pale ecru is a very good choice, but the woodwork must have a brown oak stain, not too dark. If you leave it natural, it will not tone in with the wall or the furniture. I should keep this room in very soft sepia tints, with a rug in soft browns and cream, no other color. The curtains must be ecru or cream, not white. The dining room curtains could be of barred ecru scrim.

The bedroom woodwork must be painted white and the wall tinted old pink. Get a birch dresser mahogany stained. It will cost no more than golden oak; and either a Brussels rug in deep pink or a couple of the Priscilla rag rugs, pink and white stripes.



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The Pros and Cons of the Fireless Cookers.

AT FIRST blush, it seems a wonderful thing that one may start a culinary process, pack the saucepan away, let it alone for six or eight hours, and take a perfect meal out of the box at the end of that time. It seems as if a kitchen millennium were at hand.

After two or three years of experiment, the question is not, "Will the fireless cooker do certain things?" but is it practicable for use in the average family.

To begin with there is the question of expense. The first fireless cookers were makeshifts. The idea has been perfected and the best makes are large and by no means cheap. There is a wide difference between the packing box padded with hay and the heavily built, non-conducting chest with its set of soapstones which must be heated with accuracy. One of a reliable make costs from $12.00 to $16.00. Is the saving of fuel sufficient to warrant the purchase of an article whose efficiency is limited, and which does not supersede the necessity of a coal or gas range? It would seem as if that were a question to be determined largely by the cost of fuel and by the necessity of maintaining a fire for other purposes. If a coal fire must be kept going, cooking on the back of the range, or in a slow oven can be done just as well as in the fireless cooker. If the coal fire is only made up for a short time, there is a great waste of fuel. Or if a gas range is already in commission, the cost of using the simmering burner half turned off is infinitesimal. And with one oven burner in use and turned down to its lowest point, half a dozen different things can be cooked at a time. Then take into consideration the amount of heat required to bring the food to be cooked up to the boiling point and to heat the soapstones, and it will be seen that the saving is perhaps more apparent than real.

A great deal of judgment is required as to the amount of previous cooking needed before the food is put in, much accuracy of adjustment. No servant is likely to acquire the sort of skill needed for its successful manipulation. It is a very exceptional one who is accurate about the common processes with which she has been familiar all her life.

The practical scope of the cooker, despite all its claims, seems to be limited. It is ideal for stews, baked beans, brown bread, rice pudding and a number of other things which cook satisfactorily at a low temperature. But there is a very large proportion of the common articles of food which are at their best only with rapid cooking. The average taste does not run entirely to stewed food.

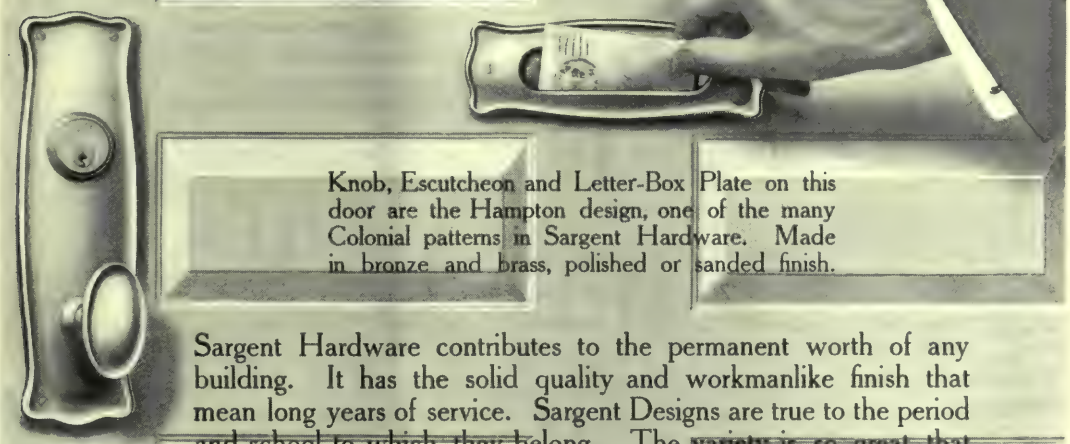
The writer has just been a guest at the annual exhibition of a well-known cooking school. The bulk of the exhibits had been cooked either by coal or gas, but there was also a demonstration of the fireless cooker and its work. The difference between the two products was noticeable. The food from the cooker had a sodden appearance, a striking contrast to the crispness of dishes which had been prepared by direct heat. The cake was not heavy, neither was it really light. Bread seemed dried rather than baked.

On the other hand, the fireless cooker is a valuable aid to the woman who is obliged to be away from home most of

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the day, and must make her household processes as simple as possible, and who will not demand a variety of results from it. There is absolutely no waste of the substance of the food, evaporating or passing away in steam, while the slow cooking results in perfect digestibility. In summer, of course, a heatless process is a great advantage.

To sum up: while the cooker is a valuable addition to our domestic economy, it has its limitations. Its scope is limited: its initial cost is considerable; it is not likely to be successfully manipulated by the average servant. On the other hand, in the hands of a woman with more or less culinary skill, it is an economy of time and trouble, removing one objection to the use of many cheap articles of food that they are as extravagant in time as they are low in cost. Its intelligent use would greatly lighten the labors of those who have to cook for large numbers of people, as in institutions or on farms in summer. And whoever undertakes its use should realize that the ordinary cookery book is of very little use to her. Different articles require different times of preliminary cooking, and different lengths of time in the cooker, and all these have been ascertained and tabulated in cook books written by experts.

Experiment Stations.

The experiment station is an essential part of modern economic progress, a place where theory may be reduced to practice, where the domestic processes can be systematized and simplified, by being performed under the observation of specially trained people. One of these experiment stations is at Darien, Connecticut, and has been in successful operation for several years. Mr. Charles Barnard and his wife live in a small house, with no more conveniences than the average house in a country village, and work out the theories of the simple life, demonstrating the possibility of doing household work with reasonable ease, by the use of modern appliances and by an intelligent simplification of processes. They are at all times ready to give information as to the best sort of household appliances to buy, and the respective merits of different patents for the same purpose.

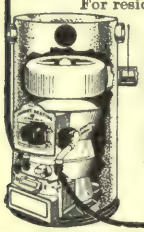
Another part of their work is the publication of bulletins on different subjects relating to domestic economy.

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JAHANT Down Draft FURNACE

For residences, schools, hotels, churches, etc.



Sold Under a Binding "Guaranty Bond" to give perfect satisfaction after 365 days' use or money refunded. We send complete outfit—furnace, registers, pipes, special blue print plans, full directions and all tools for installing. So easy to install a boy can do it.

OUR FREE CATALOG

Explains the patented Down Draft System fully, tells why it gives more heat and saves half the cost of fuel. Write for it now.

The Jahant Heating Co.

4 Mill St., AKRON, O.



Our Beautiful Booklet, "Pergolas"

Illustrated with views of some of the most attractive new homes and grounds showing exceedingly artistic results in pergola treatment. This booklet is right off the press, and is yours for the asking. Send for catalogue G27 of pergolas, sun dials and garden furniture or G40 of wood columns.

Our illustration shows the attractive effect that can be obtained by adopting pergola treatment for your garage This adds but very little to the cost of the building and makes it an attractive feature of your general landscape scheme instead of an eyesore, as it frequently is.

Proportions in columns make or mar the success and artistic effect of the pergola That is why a pergola built with

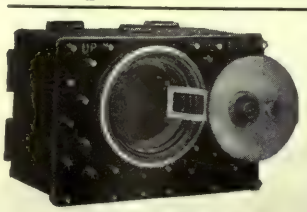
Koll's Patent Lock Joint Columns

made in classic proportions, will insure your getting a charming and beautiful pergola. They are equally suitable for porches or interior work and are made exclusively by

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Exclusive Sales Managers,
WILLIS MFG. CO., Galesburg, Ill.

Do not fail to have a

Gale Wall Safe

in your new home. It makes your valuables safe against fire, thieves, etc. No home or apartment house complete without one. Made of a combination of Iron and Steel equipped with a combination lock.

GALE WALL SAFE CO.
554 Empire Bldg., Seattle, Wash., Selling Agents.



Write for this book

and samples of the new window shade material in all colors and in Brenlin Duplex---light one side, dark the other.

This book is full of illustrations and information on Brenlin—the new window shade material that outwears several ordinary shades.

Brenlin is made without the "filling" that in ordinary shades falls out and leaves ugly streaks and pinholes.

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Window Shades

won't crack, won't fade; water won't spot them. They always hang smooth and even—always look fresh and attractive. Brenlin always proves to be the cheapest shade you can put up.

One or more good dealers in all cities sell Brenlin. Write us for samples in all colors, and in Brenlin Duplex, light one side, dark the other. These samples, with the beautiful little Brenlin book will aid you in selecting just the right color. Write today to the

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2066-2076 Reading Road, Cincinnati, O.

The name BRENLIN *is perforated along the edge of every yard of genuine Brenlin. Look for it.*

Touching Your Pocket

If you *don't* paint you are wasting money.

The protection you get, is as necessary as fire insurance.

True, fire consumes quickly, while weather conditions destroy slowly; but weather is a certainty, an ever-present foe, while fire is only a possibility.

The timely use of

Lowe Brothers
High Standard
Liquid Paint

prevents weather loss, and further *saves money* by its long wear, extra hiding ability and proved reliability, always uniform *—sure to give best results*, when applied by a careful painter.

The "Little Blue Flag" on High Standard and other paint products for every purpose, is an emblem that solves all paint problems.

Our agent near you, will tell you about "Little Blue Flag" paint products. Or ask us.

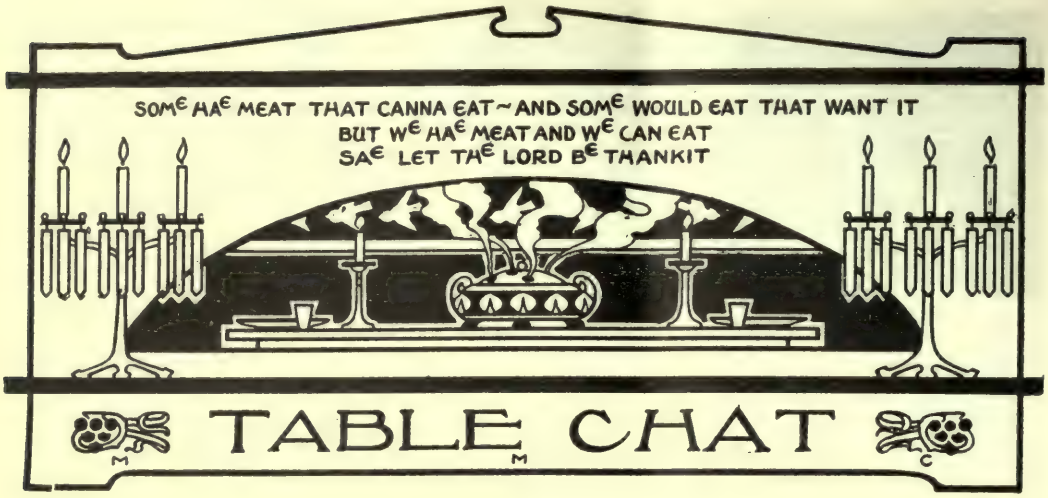
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Look for the Little Blue Flag —The Trade Mark with the Reputation Behind It.



Casserole and Ramequin Cookery

By BEATRICE D'EMO



POTATOES IN CREAM IN CASSEROLE

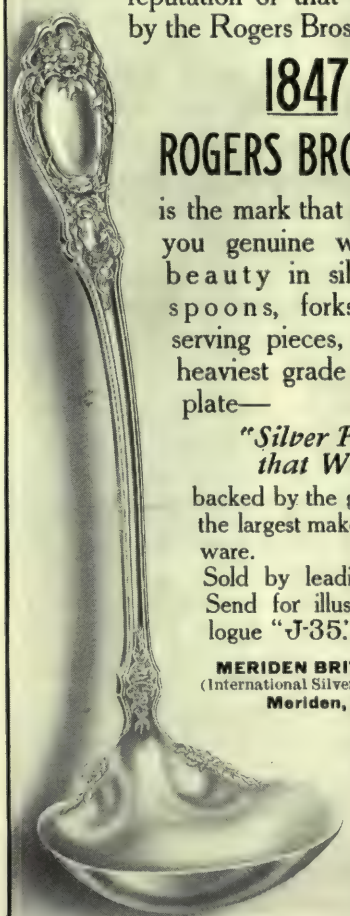
THE picturesque, inexpensive, useful casserole has long held an honored place in the French and Italian kitchen, but it is only of recent years it has been included in our American list of household necessities, for after one has become accustomed to its help it is ranked as a necessity. The common kind, made of red clay and having a cover of the same substance, with a perforation to permit the steam to escape, of a size to hold a small chicken or a pair of squabs, costs in the neighborhood of seventy-five cents; less if pur-



The Silver Plate that Originated in 1847



No brand of silver plate has ever achieved the fame or established the wearing-quality reputation of that originated by the Rogers Bros. in 1847.



1847

ROGERS BROS. XS TRIPLE

is the mark that assures to you genuine worth and beauty in silver-plated spoons, forks, fancy serving pieces, etc.—the heaviest grade of triple-plate—

"Silver Plate that Wears"

backed by the guarantee of the largest makers of silverware.

Sold by leading dealers. Send for illustrated catalogue "J-35."

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(International Silver Co., Successor)
Meriden, Conn.

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Chicago
San Francisco
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Canada



Lamps That Beautify

Any room in your house will be enriched in charm and beauty when lighted with a Handel Lamp. The soft, mellow light shows every detail of the furnishings to the best advantage.

Handel Lamps and Fixtures are expressions of the highest artistic skill and originality. The form and proportion are faultless and the color harmony is perfect.

The reading lamp here illustrated is Style No. 5357; it is made for electricity, gas or oil. Base is hand-wrought cast metal, handsomely finished. The shade is a beautiful design in blown glass Teroma, made by our cameo etching process which gives an exquisite blending of colors and produces a soft, rich radiance.

Handel Lamps

and Fixtures are sold by leading jewelers and lighting fixture dealers. We will gladly tell you the name of the nearest Handel dealer and we will assist you to select a lamp especially suited to your requirements.

Our booklet, "Suggestions for Good Lighting," shows many interesting possibilities in artistic lighting effects. It also illustrates the leading styles of Handel Lamps and Fixtures.

Sent upon request to anyone interested

The Handel Company

384 East Main Street, Meriden, Conn.

New York Showrooms: 64 Murray Street.

chased in the foreign quarter of a large city. The pottery saucepans or baking pans—they can be used for either purpose—should not be set directly over the flame when serving in the former capacity, but stood on an asbestos lid, and will then stand a great deal of heat. The cover, as the most fragile portion, can be purchased separately if accident befall. Being of porous substance, and having in addition vent holes for the steam escape, whatever is cooked in the casserole, whether stewed, braised or baked, retains its full flavor—stews especially coming from it rich and satisfying instead of watery. The wonder is that the utensil should have been considered only for baking for so long a time, when it is ideal for the other purposes mentioned.

Whatever is cooked in the casserole is also supposed to be served therefrom, although this is only a matter of taste. The handsomer dishes have plated holders, in which the cooking part is slipped for table, or the ordinary earthenware one can have a napkin wrapped about it for the same purpose. Or whatever is cooked can be transferred to a serving platter.

Vegetables cooked with mutton or beef in the casserole are usually prepared in some way to hasten their cooking, if they be large, like potatoes, carrots or turnips, these being either sliced or more tastily cut in balls or small fancy shapes with a cutter not unlike an enlarged saltspoon of steel, having a sharp rim, which is introduced into the pared vegetable, given a revolution, and a perfect sphere is turned out. There are also other cutters made on similar principles which give more fanciful shaping, or the potatoes, carrots, etc., may be simply peeled and diced. Peas or string beans will require parboiling if fresh, but the canned kind require only rinsing in clear water before being put in with the meat.

To begin with a genuine Italian casserole recipe try patate alle crema, in other words potatoes in cream. Pare two good-sized potatoes or three or four small ones. Cut in inch dice or balls and boil them in salted water for five minutes. Drain and put in the casserole—a three-pint sized one is about right for a small family—and pour over two tablespoonfuls of melted butter, a tablespoonful of grated cheese, preferably Parmesan, and two cupfuls of rich milk; half milk and half cream will make a far more delicious dish. Cover the casserole and set in a moderate oven for three-quarters of an hour. For the last quarter remove the lid and let the top brown slightly. If the milk dries out before the last quarter, add half a cupful more, but when done the potatoes should have absorbed all or nearly all of the liquid, and be deliciously soft. The cheese may be omitted if the flavor is not liked. The potatoes must be served in the casserole, as they will break apart at a touch.

John Wanamaker

ANNOUNCES

that on request a copy of the Fall and Winter Catalog will be sent you postpaid.

Over 1000 fine pictures of still finer merchandise.

A valuable book, for reference or for ordering goods; you should get one.

We never seem able to print enough to meet all requests, so write us TODAY:

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JOHN WANAMAKER
New York



Spencer & Powers, Architects.

THE BEAUTY of THIS HOUSE

IS PARTLY DUE TO THE GROUPING OF ITS

CASEMENT WINDOWS

NOW FAST BECOMING POPULAR BOTH FOR LOOKS AND FOR ALL-THE-YEAR-ROUND COMFORT.

FOR EASE AND SECURITY OF ADJUSTMENT CASEMENTS DEMAND OUR ADJUSTERS, OPERATED ENTIRELY FROM INSIDE THE SCREENS.

NO FLIES!
NO BUGS!

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Room 58, 175 No. State St., CHICAGO.



"REPUTATION AND QUALITY COUNT"

$25.85

For this elegant, massive selected oak or birch, mahogany finished mantel

"FROM FACTORY TO YOU"

Price includes our "Queen" Coal Grate with best quality enameled tile for facing and hearth. Gas Grate $2.50 extra. Mantel is 82 inches high, 5 feet wide. Furnished with round or square columns, full length or double as shown in cut.

Dealers' price not less than $40.

CENTRAL MANTELS

are distinctive in workmanship, style and finish and are made in all styles—Colonial to Mission. CATALOGUE FREE—Will send our new 112 page catalogue free, to carpenters, builders, and those building a home.

Central Mantel Company
1227 Olive Street ST. LOUIS, MO.



Selecting the Paint

It is of the utmost importance what materials are used when the house is first painted. For upon this depends the ease with which the next painting job is done. Some paint will wear away in spots leaving an uneven surface to be painted. When the time comes to re-paint, the surface will have to be scraped or burnt with a torch so as to get it prepared for the new coat. These are expensive operations.

Dutch Boy Painter White Lead

and pure linseed oil paint wears away evenly right down to the surface so that when the house is ready to be painted all that has to be done is to apply the paint. Then, too, this is the durable way for this paint lasts long and looks well as long as it lasts.

National Lead Company

New York Boston Buffalo Chicago
Cincinnati Cleveland San Francisco St. Louis
(National Lead & Oil Co., Pittsburgh, Pa.)
(John T. Lewis & Bros. Co., Philadelphia, Pa.)



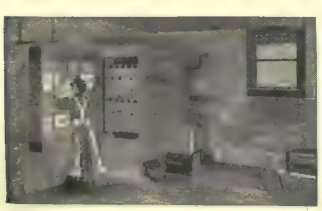
MUTTON COOKED IN CASSEROLE

Mutton in casserole makes a delicious family dinner, a sightly and inexpensive one as well. Use for it the thick chops or cutlets cut from near the shoulder and trim off most of the fat. Melt two tablespoonfuls of butter in the casserole and saute in this a small onion, chopped, then put in four chops cut at least half an inch thick and cook for two or three minutes, after which remove to a hot platter and put in the casserole a layer of sliced carrots, on top of which put the chops and around them arrange potato and turnip balls, some small peeled onions, and more carrots cut in strips or diced. Sprinkle with pepper and salt and pour over a cupful and a half of boiling water. Cover and bake for one hour, then add a cupful of peas which have been parboiled for ten minutes, or, as has been said, merely rinsed if they are canned, add a little more boiling water if the first quantity has dried out, cover and bake for another half hour, taking off the top the last ten minutes to brown.

Chicken with tomatoes is another excellent casserole dish which is prepared by first sauteing the chicken as for the chicken and mushrooms, then putting it in the oven without the lid with a finely-chopped onion and butter dotted over it until it begins to brown, when pour over a pint and a half of canned tomatoes, put on the lid of the casserole and bake for one hour. Serve with plain boiled rice.

(To be continued.)

NO DELAY TO GET THE CLOTHES DRY ON WASH DAY



When using the *"CHICAGO-FRANCIS" Combined Clothes Dryer and Laundry Stove.* Clothes are dried without extra expense, as the waste heat from the laundry stove dries the clothes. Can furnish stove suitable for burning wood, coal or gas. Dries the clothes as perfectly as sunshine Especially adapted for use in Residences, Apartment Buildings and Institutions. All Dryers are built to order in various sizes and can be made to fit almost any laundry room. Write today for descriptive circular and our handsomely illustrated No. K 12 catalog. Address nearest office.

CHICAGO DRYER CO. 630 So. Wabash Ave., CHICAGO, ILL. OR ***SHANNON MFG. CO.*** 124 Lexington Ave., NEW YORK CITY.

The HEART of the HOME is the FIREPLACE



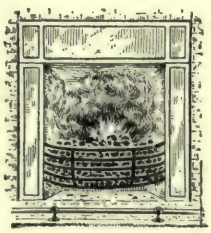
One section of our ROOKWOOD TILE display rooms in Reaper Block, Clark and Washington Streets, Chicago, Ill.

Let us help you to select a fireplace that is *right*—a fireplace of *modern design*—a fireplace that *fits in* harmoniously with its surroundings.

Our catalogue shows an exceptionally large variety of characteristic styles and we will be glad to submit sketches of special designs.

The Lorenzen Fireplaces are equipped with the Improved Lorenzen Colonial head throat and damper which insures perfect ventilation. This combination of ventilation is a result of twenty years experience in the construction of fireplaces. *Send for free catalogue showing mantels in wood, tile and brick, grates and fireplace fixtures of all kinds, consoles and colonades, etc.*

CHAS. F. LORENZEN & CO., 701-709 N. Sangamon St., CHICAGO., ILL.



Many styles of grate and mantels to choose from.

This Grate Does Double Duty

It Combines Perfect Ventilation with Economical Heating

and, with the same amount of fuel, burning any kind, will pay for itself in three years in increased heating efficiency. Heats house in Fall or Spring better than a furnace and takes about half the fuel.

The Jackson Ventilating Grate

is as beautiful as the most artistic ordinary grate and affords the same sense of coziness and cheer; but it ventilates, not dangerously, with air drawn across the room from door and window cracks, ***cold***, but healthfully with air drawn in from outside thru a fresh air duct, circulated around the fire and sent into the room thru the register over the arch, ***fresh but warmed.*** Gain comfort and save money by investigating. Any mason can set it up from our ***Complete Plans Furnished Free.***

Send for Free Catalog of our wood mantels, and irons, and all kinds of fireplace fixtures, as well as ventilating grates, with explanations, illustrations, full information and prices; also reference to users in your region.



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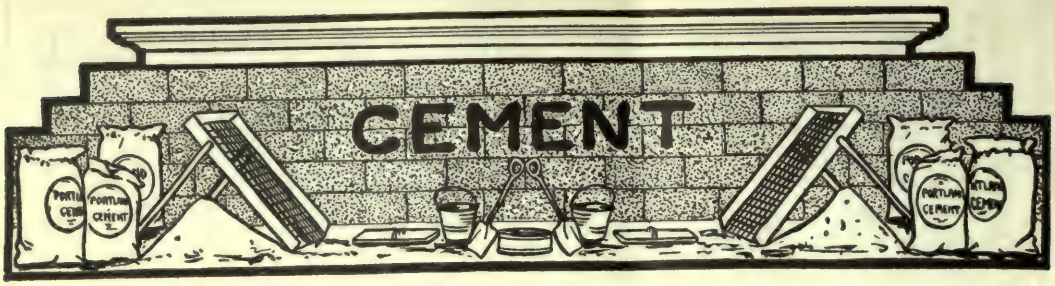
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Are made at the Rookwood Pottery, Cincinnati,—famous for its artistic work in Ceramics.

If interested write for illustrated folder.

The Rookwood Pottery Co.
11 Rookwood Place Cincinnati

This trade-mark on every Rookwood Product



Dry Basements and Walls.

DRAIN tile should be porous and laid wih open end joints and covered with a layer of crushed stone or screened gravel. Care should be taken to lay the tile well below the finished floor of the basement to insure a dry floor, says the Building Bulletin.

When concrete footings are used, the tile should be laid at the bottom and not at the top of the footings, as is often done. This will insure dry footings and prevent the water accumulating outside the footings and a few inches up on the stone or brick wall before getting into drain tile, which is the case where tile is laid on top of concrete footings.

Where this method is followed, the water saturates the wall, and capillary attraction causes the water to travel upwards until the whole wall is saturated with water. This occurs when great care has been taken to waterproof the outside of the walls, and is often charged to poor work of the contractors, when the fault was with the method. A damp course should be placed on top of concrete footings to stop all moisture from entering the wall.

Where great weight is to be carried by the footings and it is desirable to cast the concrete solid in the trench, two lines of drain tile should be used, one line cast in the concrete at the outside on the clay in the bottom of the trench. Strips of No. 2 tarred felt, cut four inches wide and two-thirds the outside diameter of the pipe, should be placed at every joint so as to prevent the liquid cement in the concrete from flowing into the tile.

Drain tile should be laid with a fall of three inches to the 100 feet. Some builders place them on the level, with very good results. In this case, the water will stand in the drain at the low points, but will do very little damage.

The inside of all walls below ground and for all basements where it is desired to have the rooms dry should be lined on the inside with porous hollow brick or block. This will prevent the condensation of moisture from the atmosphere caused by warm air coming in contact with a solid cold body.

This condensation of moisture from the air is not well understood. Many builders treat the walls to keep out the moisture when the trouble is the same as takes place on a pitcher of ice water on a hot day—air moisture formed in beads or drops on the outer surface of the glass. This moisture did not come through the glass, but was taken from the air.

We speak of dead air; that is, air that has little or no moisture and subject to no change. A space in the brick wall is often called a dead air space, but that is not altogether right, as the outer course of brick becomes wet from a storm and the air in the hollow wall space becomes damp, and when damp is a good conductor of cold; therefore, a hollow wall is not always a good protector for a house.

The more dense the walls of a house the more need of protection against cold, as the wall will store up cold in direct ratio to its solidity. A wall made of cork would absorb and hold very little cold, while one made of cast iron would store away almost as much cold as water frozen into ice, and would radiate this cold to the room inside unless the wall had a proper insulator.

For fireproof buildings of stone, brick or concrete there is no better material than hollow porous brick and blocks, while for frame buildings a good grade of building paper is used. Furring and lathing for plaster in a brick building make a firetrap of the brick wall, as fire gets between the plaster and wall, and is soon spread all over the building.



Asbestos "Century" Shingle Roof—Residence of George Jacka, Calumet, Michigan; Architect, Paul Humphrey MacNeil, Calumet, Michigan; Contractor Edward Ulseth, Calumet, Michigan

Asbestos "Century" Shingles

"The Roof that Outlives the Building"

EVERY cent you put into an Asbestos "Century" Shingle roof buys wear and service—protection against fire and weather—insurance against bills for repairs and painting.

You can't say as much for any other roofing on the market.

Asbestos "Century" Shingles are practical, *lightweight* shingles of reenforced concrete—made of hydraulic cement reenforced with interlacing asbestos fibres.

They are absolutely indestructible by weather and time. Fire cannot burn them, melt, chip or flake them. Their first cost is about what you would expect to pay for a first-class roofing—*and there's the end of the expense.*

No repairs—no painting.

You can get Asbestos "Century" Shingles in three colors—Newport Gray (silver gray), Slate (blue black) and Indian Red—in numerous shapes and sizes. Write for booklet "Reinforced 1911."

The Keasbey & Mattison Company

Factors

AMBLER, PENNSYLVANIA

Branch Offices in Principal Cities of the United States, and London, England

Care should be taken to have no circulation of air from gables, church lofts, attics and rafters down into the hollow space intended for weather-proofing, as this air will condense on the outside wall and cool the inside wall or plaster. Warm air will not seek a lower level, hence hot air in the attic will not circulate in an air space open at the top; but cold air, being heavy, will pass to the bottom and be warmed by the heat of the rooms and then rise to the attic, to be replaced by cold air again. This cause makes many houses and churches very difficult to heat.

Complete Great Water Supply Tunnel.

The city of Los Angeles is exulting over the completion of an immense tunnel through solid rock for its new water project. With world's records broken for low cost and rapidity of construction, the boring of the great five-mile Elizabeth tunnel, the most important feature of the new $26,000,000 municipal water project of Los Angeles, was completed last week.

It is the second longest water tunnel in the United States. It pierces the crest of the Sierra Madre range at a point sixty-seven miles northwest of Los Angeles, and has been drilled through 26,780 feet of solid granite.

Work began at both ends of the bore on Oct. 5, 1907, and went on day and night. The work was finished a year ahead of time and $411,800 under the estimate. It has a total capacity of 650,000,000 gallons a day.

Concrete Buildings.

Concrete buildings to the number of 519 and costing $9,894,800 were erected in Chicago during 1909. Chicago leads all other cities in concrete building construction with over 32 per cent of the total, Seattle being second and Philadelphia third.

Reading, Pa., has set the entire country an example, reporting no wood construction during this year.

Concrete Advice.

The longer the shores are left in place, the better the resulting concrete work.



JACK'S HOUSE

(Continued from last month.)

This is the house that Jack bought after he had improved it by applying stucco on KNOBURN Expanded Metal Lath.

Jack is pleased with the results for he is getting better rent for the house.

Full information regarding "overcoating" and exterior plaster in our booklet "O."

North Western Expanded Metal Co.

930-950 Old Colony Bldg., CHICAGO, ILL.

Don't Spoil a Good House With Poor Walls

Don't build them of lime plaster. It is soft and crumbles. Use U. S. Gypsum Plaster instead. It will save you a life time of repairs. Don't plaster on wood lath. They absorb moisture when the plaster goes on and swell. Then they dry out and contract, pulling away from the wall; your wall is loose—easily cracked—inflammable.

Use Sackett Plaster Board

instead of lath. Being made of Calcined Gypsum and strong fibrous felt, it is fireproof, sound-proof, unaffected by heat or cold—makes the building comfortable and sanitary.

Comes in sheets 32 by 36 inches and as thick as ordinary lath. These are nailed direct to the studding, furring or joists and afford a rigid, even surface for the plaster to go on. U. S. G. Plaster and Sackett Plaster Board are both made of Gypsum—a bar to fire. When used in combination, they fuse into a solid wall of Gypsum—as solid as rock—everlasting.

For full particulars address our nearest office. Ask for Booklet "K."

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LOOK AT IT AS WE DO!

Examine it carefully—test it and you will find that

Vulcanite Roofing

is at least ALL WE CLAIM FOR IT! It's Fire, Hail, Storm and Acid Proof. A modern roofing made by modern methods by expert workmen.

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"BEST HOUSE PLANS," a beautiful book of 200 modern homes costing $500. to $6000. I have had many years experience in planning houses, cottages and buildings, well arranged, well constructed and economical to build. If you want the BEST RESULTS, consult a man of experience and reputation for GOOD WORK. This book gives plans, exteriors and descriptions. Price $1.00. "BUNGALOWS and COTTAGES," a new book showing 50 up-to-date designs, all built from my plans, pretty one-story bungalows and cottages. If you want a small ECONOMICAL HOME, don't fail to send for one of these books. Price 50c. For $1.25 I will send you BOTH BOOKS. To prospective church builders I send my portfolio of churches for 25c.

CHAS. S. SEDGWICK, 1028 K, Lumber Exchange, Minneapolis





Creosote Shingle Stain.

SURELY there is nothing so good as creosote stain for shingles, but the painter would do well to be sure of his creosote first. I have a letter from a Pacific coast painter who has had trouble with some stuff that he bought for creosote oil; it had the odor of rotten eggs, and utterly spoiled his job. Such an experience might be expected to aid the manufacturers of stain, who stand behind their product.

A German Substitute for Turpentine.

The manufacture of substitutes for turpentine is proceeding with great activity in Germany. The technically prepared turpentine is obtained by the distillation of heavy petroleum from Borneo. The ordinary light petroleum of the United States is said not to be available for the purpose, though the grades obtained in Texas and California might yield results comparable to those obtained from Borneo oil. Analysis of samples of the substitutes shows that they secure the solubility of resin and products of resin almost as well as American turpentine oil, so that the difference in the manufacture of varnishes is scarcely noticeable.

Waterproof Water Paint.

Dissolve a pound of common laundry soap in half a gallon of water, then add six quarts of boiled linseed oil and an ounce of white vitrol (zinc sulphate). Place on the stove and bring to a boil. Then remove from the fire far enough away to be safe, and add two quarts of either benzine or turpentine. Color to suit your purpose. Strain through a fine sieve or cloth, and, if necessary, thin the paint. The colors added to this should be mineral only, and be finely ground, and dry. To make a white paint, use zinc white and gilders' whiting, adding a little ultramarine blue to remove yellow cast. This paint may be used outside as well as inside.

Painting on Brickwork.

If you have a wall of brickwork, and the bricks are very soft, then broom down clean and apply a size of acid water, just enough muriatic acid to sour the water. Let this be rinsed off with clear water, let it dry, then apply all the raw oil the wall will take. This is for a first-class job, and the oil will prevent the chipping of the brick afterward. The oil makes the soft bricks harder, and also waterproof. Hard bricks will not need so much oil. Where the wall has been filled with raw oil the first coat of paint should be of good quality, and according to what the finish is to be; if to be painted like wood, it should be thinned with oil and turpentine until the last coat, which should be done with all oil. But if a dead brick finish, then use all turpentine color for the finish, though the priming may be all oil, and the next coat or two half and half, as the dead effect is surer on a partly lustrous ground, or on a perfectly full luster.

Darkening of Paint.

The natural tendency of oil, or any oil paint, to became darker upon drying and exposure, is well known. Yet we know that white paint will become whiter under the action of light or outside exposure. Thus two contrary operations go on at one and the same time, but the darkening had been stopped by the bleaching process. The bleaching action of light is thought to be due to the formation of minute quantities of peroxide of hydrogen, which is, as is well known, a powerful bleaching agent. Inside paint, white to begin with, tends to darken, according to the amount of light it has, and in the utter absence of light it will become a dark yellowish color. In this case it is the oil that has darkened. So

New Roofing Discovery

Works Wonders in Beautifying Home!



For Simplest and Grandest Homes

CHARMING Moorish beauty and dignity of appearance of Metal Spanish Tile gives an air of distinction to the home graced by this wonderful new and practically indestructible roofing.

It has taken home builders of America by storm, for it is the modernization of the wonderfully beautiful roofs of historic Spanish edifices.

The art of making this roofing, left behind by fleeing Moors driven out of Spain centuries ago, until 1910 could not be made practical for the modern home, despite its alluring beauties.

After years of experiment, we have hit the solution That is why today we are able to offer American homes the amazing attractiveness of

Metal Spanish Tile Roofing

Its scores of vital, practical advantages cost no more than common roofing, yet mean tremendous economy—it needs no repairs and outlasts several ordinary roofs because of its practically indestructible metal construction.

It is absolutely wind, weather, storm, fire and lightning proof.

Easy to apply. No soldering, no special tools—any ordinary mechanic can apply it. Interlocking system by which tiles dovetail into each other makes the roof absolutely water tight and provides for expansion and contraction perfectly—summer and winter. It is guaranteed non-breakable.

HOMEBUILDERS—Simply send us today the dimensions of your building and we will tell you by return mail exact cost of all material. Our new 1910 book on beautifying the modern American home by use of **Metal Spanish Tile** is yours for the asking. A postal will bring it. Address

The Edwards Manufacturing Co.

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Make this Trade Mark your permanent guide for Good Varnish.

THE varnishing of your floors, doors and woodwork should receive your personal attention—at least to the extent of selecting the make of varnish to be used.

It's as important a detail as any you have to consider in the building of your home. By looking for the Berry trade-mark and insisting upon

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you will be sure not only of satisfactory appearance but of greater durability and ultimate economy.

The four varnishes listed below supply every varnish need for good finishing in homes and other buildings.

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For finishing floors in the most durable manner possible. The best-known and most widely used of all varnishes.

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For the finest rubbed or polished finish on interior woodwork. The standard to which all other varnish makers have worked.

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For interior woodwork exposed to severe wear and finished in full gloss. Stands the action of soap and water to an unusual degree.

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For front doors and all other surfaces exposed to the weather. Great durability under most trying weather conditions.

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Dealers, Everywhere





MALLORY'S
Standard
Shutter Worker

The only practical device to open and close the Shutters without raising windows or disturbing screens.

Can be applied to old or new houses, whether brick, stone or frame, and will hold the blind firm in any position.

Perfectly burglar proof.

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HESS MEDICINE SANITARY CABINET LOCKER



The Only Modern, Sanitary
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orlocker finished in snow-white, baked everlasting enamel, inside and out. Beautiful beveled mirror door. Nickel plate brass trimmings. Steel or glass shelves.

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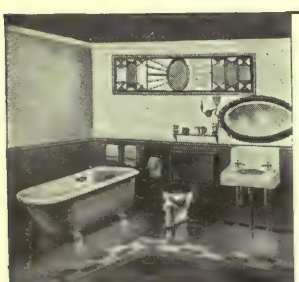
Never warps, shrinks, nor swells. Dust and vermin proof, easily cleaned.

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Four styles—four sizes. To recess in wall or to hang outside. Send for illustrated circular.

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you will see what the maker of white paint is up against when it comes to the permanency of his color.

Paint for the Seashore.

A painter writes to ask if we can indicate a paint suitable for seashore painting, says Painters' Magazine, as all he has ever tried fails to stand up against the salt air. He adds that he has known of many different brands of ready mixed paints being used, but all failed, as well as the hand mixed paints. Now, this is a question. The master painters have argued it, some saying that they have had good success by using a mixture of lead and about 10 to 20 per cent of zinc white added to the lead. But this painter says no. Thinking the matter over, it occurred to me that paint does well enough on ship work, why not the same on shore? Now, here is a formula that Uncle Sam uses on his ships. It is an exterior white paint. He has two formulas for outside white, both of the same materials, but differing in proportions. The first one is thus:

White lead in oil, pounds	7
Zinc white in oil, pounds	7
Raw linseed oil, gallon	½
Turpentine, gills	2
Japan drier, gill	1

In the other formula he uses less lead and more zinc (probably to get a whiter effect), and less oil and more turpentine. In the first formula there is used equal portions of lead and zinc. House painters who have experimented use not over one-third zinc. In the second formula the proportion of zinc is nearly double that of lead. So that if we should use a large proportion of zinc white in our paint for seashore painting perhaps the painting would endure certainly as well as that on ships. Try it, at any rate.

A Flat Water Paint.

Here is a flat water paint made by taking 50 pounds of gilders white and placing it in a tub. Pour water on it until it is covered, and after standing, say all night, pour off any water that is on top, and beat it up with two gallons of hard oil, or even with gloss oil, adding any color desired, using dry or distemper colors. Then thin it down with benzine or turpentine to a working consistency. Such a paint will dry flat, and can be made very cheaply.



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Beautiful -:- Economical -:- Durable

Three Vital Qualities

¶ OAK FLOORING imparts an air of refinement and elegance to a home. Its color is rich and cheerful.

¶ OAK FLOORING 3/8" thickness can be laid over old floors at a very low cost, without disturbing the woodwork of a room.

¶ Specify and use OAK FLOORING. Its great wearing qualities insures best results. Any good architect or builder will advise that OAK FLOORING is an investment.

¶ OAK FLOORING is made in four grades, and is adaptable for cottage or palace.

¶ The living, renting and selling values of any building, large or small, is vastly increased by OAK FLOORING. Ask any truthful landlord.

Write us for further information.

The Oak Flooring Bureau

840 Hammond Bldg., Detroit. Mich.



Plain Words from a Painter to a House Owner

"You would think that painters averaged better than bankers, lawyers or merchants, the way people trust them," said an old painter to a property owner who had called him in to tell why his painting had gone wrong.

"Painters will average just as high in skill and honesty as any class, perhaps," he continued, "but we have fakirs to contend with in our trade as much as you do in yours. And you property owners leave everything to the painter who bids lowest.

"There is nothing much wrong with this job except that the painter used a substitute for pure white lead and did his work too hurriedly. I suppose he had to do it in order to make anything on what you paid him.

"Next time specify pure white lead guaranteed by the 'Dutch Boy Painter' for all your painting, and give the good painters in your community an even chance. Then allow them time to do the work right."

Ask us for "Dutch Boy Paint Adviser No. K.E." Includes information on painting decoration (in the house and out) flower and shrubbery arrangement, etc.—a most valuable collection of booklets—free.

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An office in each of the following cities:

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New York Boston Buffalo
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Estimating Amount of Heating Surface for a Building.

WILLIAM J. Baldwin, in his work, "Baldwin on Heating," gives the following rule for estimating the amount of heating surface necessary to maintain the heat of the air of enclosed space in buildings to the desired temperature:

The heating surface necessary to warm a room, of course, should be proportioned to the cooling surface, and the glass of the windows and the outside walls form the largest factors in cooling.

The glass which forms the windows forms the highest cooling factor in ordinary practice, and it may be taken as 1,000, in which case the following table shows approximately the value of other building materials :

Window glass	1,000
Oak and walnut sheathing on walls	66 to 100
White pine and pitch pine	80 to 100
Lath and plaster, walls good	75 to 100
Lath and plaster, common	100 to 150
Common brick (rough)	150
Common brick (hard finish)	200
Common brick (hollow walls, hard finish)	150
Sheet iron	1,100 to 1,200

A square foot of glass and a square yard of ordinary outside wall have about the same cooling value.

It has been found that one square foot of heating surface with steam at one pound pressure will just about offset the cooling done by two square feet of glass when the outside temperature is 70 degrees. This is so well established now that it need not be questioned.

In the early days of steam heating the writer was acquainted with this fact, and he devised the following rule:

Divide the difference in temperature, between that at which the room is to be kept and the coldest outside atmosphere, by the difference between the temperature of the steam pipes and that at which you wish to keep the room, and the product will be the square feet, or fraction thereof of pipe surface to each square foot of glass (or its equivalent in wall surface).

Thus: Temperature of room 70 degrees; less temperature outside, 0; difference, 70 degrees. Again; Temperature of steam pipe, 212 degrees; less temperature of room, 70 degrees; difference, 142 degrees. Thus $70 \div 142 = 0.493$, or about one-half a square foot of heating surface to each square foot of glass, or its equivalent.

It must be distinctly understood that the extent of heating surface found in this way offsets only the windows and other cooling surfaces it is figured against, and does not provide for cold air admitted around loose windows, or between the boarding of poorly constructed wooded houses or for ventilation. These latter conditions, when they exist, must be provided for separately.

Piping for Steam.

The greatest care must be used in running pipes. Carelessness or the work of an inexpert may cause serious trouble. A departure from a perfect alignment will cause water pockets or "traps," obstruct the circulation and cause noise.

All horizontal branches should be one size larger than the risers, whether for first or upper floors, on account of the greater resistance to the flow as compared with vertical pipes.

Mains and branches should be of ample size for the radiation they are to supply, with due allowance for their lengths.

Too small pipes will often cause the radiators to fill with water of condensation which cannot return until there is no pressure of steam, causing material variation in the water line of the heater,

Every home-owner should have this book



because it gives valuable information on that which makes for health in the family, convenience in housekeeping and economy in household expense—*stationary air cleaning*. It also shows why you should have your house piped with 2½-in. pipe to secure the most effective cleaning and gives full details of the working principles which make the

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the most satisfactory system to install. If you read this book you will realize that stationary air cleaning is a kindred convenience to heating, lighting and plumbing, you will see that you can't afford to be without it, and you will want the system that has been proven the most sanitary, most durable and most economical—the TUEC.

Whether your home is already built or just being planned write for this book.

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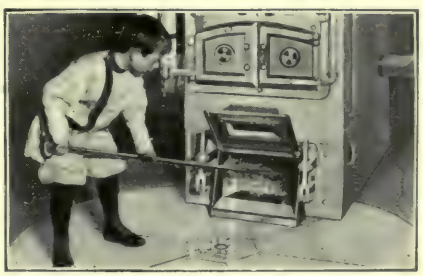
Royal Sectional Steam and Water Heaters.

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So Simple a Child Can Operate It.

DO AWAY with unsightly ash barrels,—the inconvenience and drudgery of ash disposal. No piling of ashes on the cellar floor—no furnace dust in your living rooms. All waste matter is contained in removable, strong iron cans with the ashes in a cement-lined vault. All odors and dust go up the chimney. Mechanically perfect—a practical solution of the ash and garbage nuisance, guaranteed to give satisfaction.

Easy to Move Ashes in Portable Cans.

THE SHARP ROTARY ASH RECEIVING SYSTEM can be installed in any building—**old or new**—under any style of House-Heating Furnace or Boiler before or after it is in operation. Ashes fall directly into strong iron cans that revolve easily as filled. Endorsed by Health Officers, Architects and Heating Contractors. Worth while to investigate before you complete your building plans.



Write today for Illustrated Catalog of practical demonstrations and testimonials. Dealers and Architects names appreciated.

The W. M. SHARP COMPANY,
257 Park Ave., Binghamton, N. Y.

Holds 6 to 10 weeks ashes, removal of which is no effort.

besides loss of efficiency of the radiators affected. Small piping has spoiled many a job, large piping never.

It is desirable that an equalizing pipe connecting the steam mains near the heater to the return connection be placed on all heaters, as it will overcome the trouble often experienced as the result of greasy or impure water, or that heavily charged with minerals peculiar to certain localities, causing a foamy condition of the water.

Every heater should be "blown off" under pressure after drawing the fire to thoroughly empty it of all the grease and dirt after the first firing.

Ream all pipe carefully.

Approximate Ratio for Radiation.

While there is no fixed rule for cubical contents that can be applied whereby the proper amount of radiation can be determined for all conditions to be met, the following will be found approximately correct and safe under ordinary conditions:

In well constructed buildings one square foot of direct radiation will heat cubic contents as indicated:

Dwellings—	Hot Water.	Steam.
Living rooms with three exposures and ordinary amount of glass.....	24	40
Living rooms with two exposures and ordinary amount of glass.....	27	45
Living rooms with one exposure and ordinary amount of glass.....	30	50
Sleeping rooms	30—40	50—70
Bath rooms	20—30	35—50
Halls	30—40	50—70

The Heating Value of Crude Oil.

I have at various times read of the use of crude oil as fuel. Can you tell me any facts about its value as compared with coal and also where it is so used?

Tests to find out the relative value of crude oil and local coal have been made in the state of California, in which it was found that one net ton of coal was equivalent to 94.5 gallons of oil.

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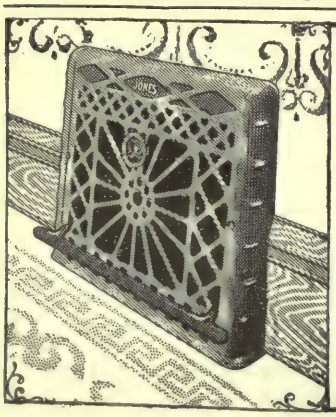
We will deliver a complete heating equipment at your station at factory prices and wait for our pay while you test it during 60 days of winter weather.

The entire outfit must satisfy you or you pay nothing. Isn't this worth looking into? Could we offer such liberal terms if we didn't know that the Hess Furnace excels in service, simplicity, efficiency, economy?

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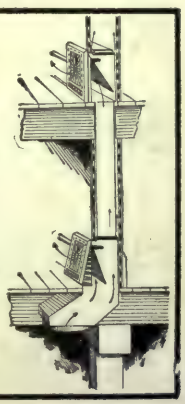
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Our improved "JONES" Side Wall Registers have been installed in over 350,000 of the most comfortably heated homes of the United States and Canada.

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Let us show you how this ingenious contrivance prevents the battering of your foundation walls, mutilation of your window sills, defacing of your paint. Let us show you how it saves your lawn and walks and halves the labor of putting in the coal. Let us show you how it pays for itself the first year and lasts longer than your house. If it is as good as we say, you need it, don't you? Well then, make us prove it. Whether your house is old or new, send for that ILLUSTRATED CIRCULAR. Write today to

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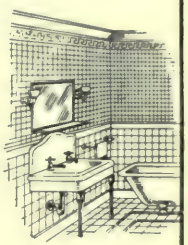
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If about to build, remodel or **decorate,** you will find the No-Co-Do Steel Ceilings and Walls the most **decorative, durable** and **economical** of anything you can use. Can be put over old plaster by any mechanic.

Dust, Vermin and Fireproof. Will not crack or fall.



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Tile your Bath Room, Laundry, Pantry and Kitchen Walls with the No-Co-Do Steel Tiling, better and cheaper than the Porcelain, lasts a life-time.

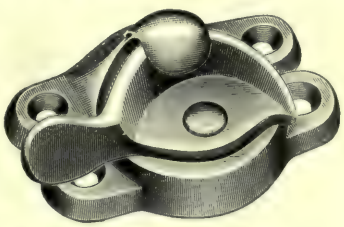
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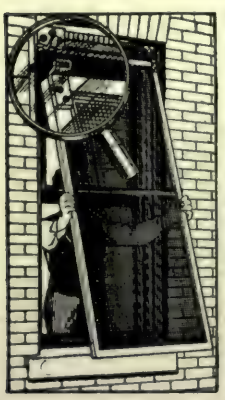
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SPLINTERS AND SHAVINGS

THAT the general public is gradually coming to a realization of the true relation of an architect to the buildings for the design of which he is responsible there is ample evidence, to which more is added almost daily. One of the most graceful acknowledgements of the architect's services that has been brought to our attention, and one that bears directly upon this subject of credit in the public mind, was recently made by the chairman of a building committee upon the occasion of the dedication of a public building in a neighboring city. Himself a layman, but a man of culture and refinement, he gave expression to the following sentiment during the course of his address:

"It is the misfortune of the architect that his name is not so intimately associated with his creations as is that of other artists. In music the name of the composer quite overshadows the name of the composition. In literature the book and the author are always coupled. But probably not one-half of one per cent of the residents of this city know now or will remember the names of the architects of this beautiful building. The speaker is sure, however, that the directors, trustees and officers will ever bear in mind the skill, fidelity, zeal and patience shown by the firm of Messrs. —— in preparing the plans and superintending the erection of this building."

If architects can so conduct their work that upon completion their grateful clients will not only make public acknowledgement of their appreciation, but deplore the fact that credit for their work is not generally accorded the designers of even the more important buildings, it does not seem that the day is far distant when the name of an architect will be as closely associated in the popular mind with the material evidences of his ability as is that of a successful writer or composer under present conditions.—The American Architect.

Hints on Estimating for the Building Contractor.

Don't forget that rates of wages are lowest in dull times and in winter, and highest in boom times and in summer.

In estimating the cost of transportation give special attention to the character of available roads, the direction of the proposed traffic, and the time of year.

Insurance against accidents depends upon the riskiness, not to the plant, but to the men.

After making an estimate in detail, lay it aside a day or two if possible, forget the figures and then go over them again critically.

If some one else is going to carry on the work, take his personality into account in making an estimate of how much his work is going to cost.

Check up an estimate against average contract prices, selecting particularly contracts where the conditions are well known, and selecting the contract bids from firms of experience in the line of work in question.

Check over the bidding sheet to see that it compares with the estimate.

A long and big job can be estimated on more safely than a short and small one, since the accidental conditions on big work are more likely to balance themselves.

The worst estimate made upon even assumed data is generally a good deal better than guess.

To estimate the quantity of sheeting or of shiplap, calculate the exact surface to be covered, deducting openings; then add the following percentage:

For floors	1/7, or 15%	1/6, or 17%
For sidewalls...	1/6, or 17%	1/5, or 20%
For roofs	1/5, or 20%	1/4, or 25%

The cost of materials will vary from year to year. A study should be made of the characteristic fluctuations in prices, when figuring closely, in order that proper prices of materials can be determined for some time in advance.



HOW TO GET THIS EFFECT WITH SHERWIN-WILLIAMS PAINTS AND VARNISHES
CEILING—S-W Flat-Tone Ivory UPPER WALL—S-W Flat-Tone System Effect No. 3 STENCIL BORDER—Stencil No. 124
LOWER WALL—S-W Flat-Tone System Effect No. 13 FLOOR—Oak, S-W Antique Oak Paste Filler and S-W Marnot
WOODWORK—Oak, S-W Handcraft Stain Cathedral Oak finished with S-W Durable Wood Finish Interior

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The Up-keep of Your Home

YOUR walls, woodwork, floors, furniture, etc., can be kept in the best of condition by the occasional use of one of the Sherwin-Williams Brighten-Up Finishes, a complete line of Paint and Varnish Products for use about the home. Tell the local Sherwin-Williams dealer what you wish to do and he will give you the Paint or Varnish best suited for the purpose. Write for the "Brighten-Up" Booklet B-68.

Sherwin-Williams Marnot

MARNOT is a durable, tough and elastic floor varnish that is not easily marred under footwear and that retains its original luster for the longest possible time. It dries dust free in about eight hours and can be walked on the next day.

No other treatment need be applied to any surface. The walls, floors, ceilings, woodwork, furniture, as well as the outside of the house, can be satisfactorily decorated with the various stains, varnishes, colors, paints, flat-tones and other finishes included in the term "Sherwin-Williams Paints and Varnishes."

Our "Style Portfolio of Home Decoration" contains 20 plates in color, showing many attractive ways of applying Sherwin-Williams Paints and Varnishes to your home, and giving complete working specifications for carrying out the suggestions. It will be sent to any one on receipt of 5c. to cover cost of mailing.

Sherwin-Williams Handcraft Stain

THIS is a high-grade, artistic stain for finishing interior woodwork. These stains have a wonderful richness and individuality of tone, do not streak when applied, are transparent and do not obscure the finest grained wood. The line includes 14 shades.

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A PAINT for the artistic yet economical decoration of interior walls, ceilings and woodwork. It produces flat effects that are soft and rich, is easily applied, does not streak, can be washed and cleaned without injury, and is made in 24 beautiful shades.



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Dull Finish for Rough Plastered Walls.

Replying to a contractor who had several rooms in a school building to paint where the walls were rough plastered and the finish was to be a dull one, who asked what size to use on the walls and how to mix the paint in order to obtain the result desired, the "Painters' Magazine" said:

"For cheap work, size the walls with a wall or suction varnish, then apply one coat of oil paint, a mixture of equal parts pure lead and pure zinc in oil, thinned with three parts raw linseed oil and one part turpentine and dryer in equal portions. Have this mixture tinted with oil colors, same as the finish desired.

"For the finish use zinc white ground in oil, tinted to suit, and thin with one part raw oil and three parts turpentine with sufficient japan dryer. Have this paint stout and stipple it, as in this way you will have the best, most uniform effect.

"Another method is to thin down pure white lead in oil with raw oil, not over ten pounds of lead to one gallon of oil, adding a trifle japan, applying this direct to the plaster. When dry, apply a coat of glue size prepared as follows: One pound good white glue dissolved in one-half gallon of boiling water, and two pounds of alum dissolved in one quart of boiling water. Add these solutions, while still warm, together, stirring in the meantime. The alum water should be added last, and slowly. When all is smooth add enough cold water to make it of the consistency of heavy varnish.

"Apply the size with a large wall brush, and, if it does not work free enough, warm it some. Follow this with two coats of paint, as described above for the first method."

Port Mann, B. C., like Prince Rupert, has been laid out by expert landscape architects. The foresight shown at these places should offer a suggestion to older communities. It is never too late to start improvement work.

TRADE MARK
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THE ORIGINAL

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Brick and Cement Coating

protects concrete or stucco walls, floors and ceilings against damage from moisture and does not destroy the pleasing texture of concrete or stucco. It has been endorsed by the National Board of Fire Underwriters as a fire retarder, has been applied with great success to the exteriors and interiors of residences, hotels, factories and mills; when applied on ceilings it does not drop off, thus preventing damage to delicate machinery.

FOR FLOORS

It prevents floors from dusting and sanding and is admirable for hospitals and similar institutions. Will stand wear and washing. We can give you the names of some of the best residences and best textile and other mills where it has been used successfully under most adverse conditions.

Address for descriptive booklet Dept. 2, mentioning this medium

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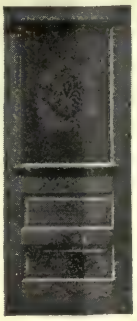
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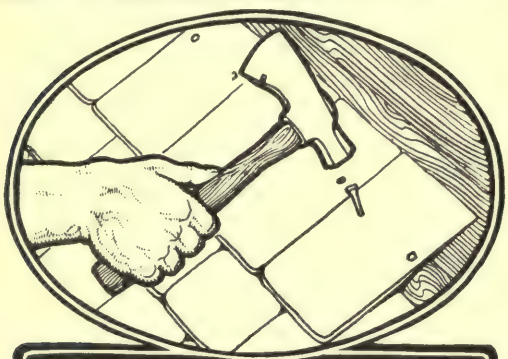
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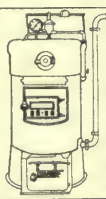
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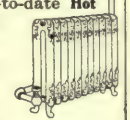
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IDEAL HOMES MAGAZINE

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A VERY SUCCESSFUL COLONIAL HALLWAY. THE POINTED ARCHED ENTRANCE IS UNUSUAL BUT IS NOT INHARMONIOUS AS USED HERE

KEITH'S MAGAZINE

VOL. XXVI OCTOBER, 1911 No. 4

The Impression of the Hall

Interesting Points for Consideration in Home-Building

By MARY H. NORTHEND

SINCE the days which gave us the narrow dark entry-way of a half century ago, with the staircase rising abruptly from the front door and with scant space for a hat rack, a chair and our own persons, there has been as usual a strong reaction, which brought into favor the living-room hall, embodying many of the ideas of the old baronial halls of mediaeval days. The former type gave scant welcome to the visitor, and possibly the unattractiveness of this gloomy, contracted entrance was due to the fact that the front door was an entrance of ceremony and not so freely used as at the present day. Then the swing of the pendulum introduced the farthest extreme, and one was ushered, without even the formality of a vestibule entrance, into the open arms of the family living-room. Certainly it would be difficult to find more radically different types. The one chilled us by its uncompromising severity, the other fairly made us gasp by the suddenness of approach. However, we have learned much from both types, and the result most approved today is a combination of the best in each, without either overdue constraint on the one hand or undignified freedom on the other.

The hall is the means by which one is introduced to the more intimate parts of the house, and this first impression which one gains is a vital one. The introduction should be gracious, but not effusive; dignified, but not overbearing; suggestive of what is to follow, and yet restrained; arousing in the visitor a pleasant anticipation of the welcome he will enjoy when the privilege of further entrance is granted. Our hearthstone with all that centers about it is intended primarily for ourselves and should be shielded for us and those we invite to share with us. Its value is lessened if the chance knocker at the gate is permitted a glimpse of the inmost life of the family circle.

The living-hall is well suited to the summer cottage or bungalow, or to houses in warm climates where much outdoor living on the porch is enjoyed. With the additional out of door room there is less necessity for privacy within the house, and the informal welcome of the hall living-room harmonizes with such an atmosphere of free hospitality.

For our all-the-year-round houses, however, such an arrangement does not make a strong appeal. If the center of family life were not something peculiarly our own it would be but a common thing with little meaning for us, and so we cherish it well within our homes, admitting the visitor to its privacy only



A GRACEFUL STAIRWAY IN GENUINE OLD COLONIAL STYLE

after he has formally prefaced his entrance by the passage of the hall.

There has also been a tendency to combine the hall with the reception-room, having a vestibule entrance. While this has some advantages over the living-hall, in that it is used merely for the reception of formal guests, it is not advisable for the average house where economy of space must always be given first consideration. Under ordinary circumstances the hall of fair size with vestibule entrance and a good sized living-room is far preferable to the reception-hall and small room commonly called the den.

This does not mean that the living-room should be enlarged at the expense of the hall. There should be no impression of insufficient space on entering the hall, for it should be large enough to avoid any sense of crowding and to allow room for a graceful staircase.

The hall of Colonial days extending through the house, with a door at either end and with its broad, straight staircase, has never been surpassed as a dignified and welcoming entrance to the house. For a house of moderate size, however, the space required for a hall of this type cannot often be spared from the other rooms, and there have been variations of this Colonial style which are quite successful and yet do not occupy so much needed space. One modern adaptation of this idea is shown in the first illustration. The structural features of this beautiful hall give it its greatest charm. There is good treatment of the pointed arch; the staircase, graceful in itself, is well placed with relation to the size of the hall, allowing ample space about it; the window on the broad landing provides good lighting for the stairs; and the finish of the walls makes



A PAVED HALL WITH QUAINT SPANISH DETAILS OF FINISH AND FURNISHINGS

an effective background for the wicker furniture. The one-toned textile wall-covering is always safe and pleasing, because inconspicuous. The bookcase and fireplace lend unusual touches, which make for individuality.

Japanese grass cloth was used in this second hall as a wall covering, with figured draperies and rugs forming a strong but subdued contrast. The graceful curve of the stair rail at once claims attention. Although not a reception hall, this hall relaxes somewhat from the formal tone of a mere entrance place, as it has a large vestibule entrance.

Whatever the character of the hall may be, whether it is a formal place of entrance, a reception-hall, or a living-hall, the vestibule is an almost necessary protection. If provided for in the building of the house, there will be no necessity for the addition of the separate vestibule of matched boards with which many people find it necessary to mar the fronts of their houses during the winter months. The permanent vestibule will save much wear and tear in the hall proper. It should be well lighted and large enough to contain the umbrella stand, door mat, and, if possible, a settle with place for rubbers and a seat.

The furniture in the hall (and this means the entrance hall proper, not the living-hall) should never suggest solid comfort. It extends to the visitor merely a civility without the living-room atmosphere of relaxation. Whatever furniture is placed here should be either for use as a temporary convenience or for some decorative purpose, such as stiff backed chairs or the hall settle. The rocking chair is never permissible in the hall.

A pleasing feature of many modern

halls is a fireplace. When properly treated, it adds a note of individuality. It should be classed in with the furniture as a purely decorative unit. It lends an air of dignity to the entrance of the house, but it never, like the living-room fire, offers comradeship. There should not be the atmosphere about the hall fire which invites one to draw up an easy chair and lounge comfortably before it with the companionship of a book. That would be a compromise of the purpose of the hall as an entrance and would smack of a too ready familiarity.

The hall fireplace should be treated in bold, simple lines, and its opening should be as large as possible. Although the opening of the fireplace in this paved hall shown here seems rather inadequate for the size of the room, the severe marble facing and the simple finish of the mantel are noteworthy. The hall suggests the architecture in the old Spanish missions, and while not exactly a period room, the mission idea has been largely carried out, the Spanish chair on the right being of a style often found in the old houses of Mexico City and other places where Spanish influence is apparent. The oak beams in contrast with the white walls and ceiling add strength and simplicity to the room. In the instance of this hall the staircase is placed in an adjoining stair-hall finished after the same Mission style in rough plaster and oak woodwork. While a hall of this type is hardly advisable for the average house and can be used successfully only where the furnishing of the adjoining rooms is made to conform in some measure to it, still the beauty of its white panelling, the strength of its heavy oak beams, and the simplicity of furnishing which characterizes the entire room are suggestions which might well be applied to any hall.

The last illustration is an example of the hall when its function is combined with that of another room. Here the atmosphere is entirely formal, entrance being made through a vestibule into the reception-hall proper. This is not intended as a living-room in any sense, but merely as a place to receive guests on a formal plane, and the furnishings are entirely of a formal type. The staircase is partly screened, for it is not so important a structural feature as when the function of the hall is purely that of an entrance. The staircase has broad, low steps leading to a wide landing, and these points are matters not to be overlooked. We realize today the necessity of stairs that are built right. The stairs that were put in many of the houses built 75 years ago, particularly the back stairs, with an 8-inch tread and a 9-inch rise, are unheard of horrors today. An average stair has a 10-inch tread and a 7-inch rise, but, if possible, they should be made with a 12-inch tread and a 5¾-inch rise. While this matter is generally given attention today there is frequently no provision made for landings, large enough to allow sufficient space for the turning of the furniture, and the result is scarred paint and torn wall paper. As in the case of the reception-hall shown here, the stair landing may afford a good location for an attractively draped window. Sometimes the hall clock is placed on the landing, but, if this must be done at the expense of necessary space, it is to be avoided.

More than any other part of the house does the hall depend for its beauty on its structural features. The construction of the staircase, the placing of windows, the finish of the walls are all important points to be considered. It is a place for a broad, harmonious treatment. The colors chosen must have character and yet be subdued and such as will harmonize with the color scheme of the ad-



A LARGE COLONIAL HALL WHERE GUESTS MAY BE RECEIVED FORMALLY

joining rooms. The exposure of the hall will, of course, largely govern the finish of its walls. If it receives much sunlight a soft dull green, rather than the delicate Nile green or one of the deeper shades, would make an excellent background. For a hall receiving a cold, northerly light a warmer tone is needed, and for such a room one of the shades of tan is effective and more suited to the character of the hall than a clear yellow. Delicate toned wall coverings that would be suited to the reception room are entirely out of place in the hall proper. A wood finish in the hall is more to be desired than in any other room, but if papers or fabric wall coverings are used, they should either be plain or have a decidedly conventional pattern in dull, soft tones.

What impression would your hall make on you if you were entering it for the first time? Is the staircase given full value as the link between the lower and upper regions of the house? Are the walls a soft, harmonious background for an entrance which leads naturally into the adjoining rooms, or do they stare back in an aggressive way and utterly defy one to see any connection between them and the walls of the living-room? Is the hall light and cheerful, or is it dim and uninviting for want of better side lights by the door? These are some of the points which make or mar the success of the hall, which brand it as a place to be passed through without interest merely because it is the necessary means of entrance, or distinguish it as a fitting preface to the inner rooms for which one feels it strikes a sure keynote.

Fall Planting of Hardy Bulbs

By TARKINGTON BAKER

(Continued from the September issue)

IF I were called upon to designate the best bulb for general planting —the best of all the hardy bulbs —I should select the Darwin tulip. It is only in recent years that its many virtues have become generally known, and it has been a source of much satisfaction to me to note that in the last five years the sales of this wonderful bulb have increased tenfold. It comes into bloom late in May, and the flowers are superior for every purpose—best as cut flowers and best for decorative purposes in the garden. They are borne on stems that are from twenty to thirty inches in length and they do not deteriorate. Once planted, they ask only to be permitted to remain undisturbed until increase makes division advisable, and, year after year, they produce their splendid blossoms freely and generously. In color and brilliancy of flower, moreover, they surpass all other tulips. It is difficult to select the best, but no garden should be without Ouida, carmine red; Nautica, purplish rose; Kate Greenaway, white and lilac rose; Faust, purple black; and Buffon, rosy lilac.



LILIUM TIGRINUM

Of the early blooming tulips the best for outdoor planting are: Singles—Artus, dark scarlet; Bell Alliance, bright scarlet; Brutus, scarlet; Rose Gris-de-lin, the best bright pink; Chrysolora, the best yellow; Canary Bird, yellow; Pottebakker, pure yellow; Pottebakker White, pure white; La Reine, rosy white. Double-flowering—La Candeur, pure white; Courrone d'Or, yellow; Duke of York, carmine with white edge; Rex Rubrorum, bright scarlet; Souronne des Roses, deep pink.

The Parrot tulips form an odd and interesting section, but the flowers lack the precision that is the striking characteristic of the tulip. The parrots, though, are exceedingly effective, and always striking when planted in borders. The best varieties are Admiral of Constantinople, orange red and scarlet; Cramoisie Brilliant, scarlet; Lueta Major, golden yellow; Markgraaf van Baden, golden yellow inside and feathered scarlet, purple and green outside. All bloom in May. Among the best of the May-flowering or cottage-garden tulips are: Bouton d'Or, golden yellow; Gesneriana spathulata, the finest scarlet among the tulips; La Nigrette, almost black in color; Maiden Blush or Picotee, a blush white; Bridesmaid, cherry rose, pinkish white stripes;



A GROUP OF POPULAR "GERMAN" IRISES. EASY TO GROW, HARDY AND PROLIFIC IN BLOOM

La Candeur, pure white; Firefly, brilliant orange, and Retroflexa, a bright yellow tulip with recurved petals.

To obtain the best shades of color in planting hyacinths in formal beds—the only sort of planting for which they are at all valuable—the following varieties are to be recommended: Norma, pink; Robert Steiger, deep crimson; Madame Vanderhoop, pure white; Leonidas, light blue; Baron van Thuyll, dark blue, and Ida, citron yellow. All these are single. The double varieties are of little if any value, except as "freaks."

The best month for planting lilies is October. Spring planting should be avoided. Among the best varieties to plant are the longiflorum, whose funnel-shaped blossoms are the longest of any hardy lily; Japonicum, with colors varying from a blush to a deep reddish pink; Brownii, with blossoms that are pure white inside but marked with a purplish brown on the outer part of the petal; Batemanniae, bright orange; Henryi, dark reddish yellow, and auratum, the most gorgeous of lilies; tigrinum, the well known "tiger lily"; superbum, Wallacei, Thunbergianum, candidum, croceum, Canadense, umbellatum and speciosum and the brilliant little lily, tenuifolium.

Any good garden soil of a fair depth is suitable for such kinds as Brownii, candidum, Chalcedonicum, croceum, excelsum, Hansoni, Henryi, Thunbergianum, tigrinum and umbellatum. Lilies that prefer a stronger soil, such as a good, rich, friable loam, are: auratum, Batemanniae, Martagon, album, speciosum, and Washingtonianum. Those that require a considerable proportion of heat and moisture are: Canadense, pardalinum, Philadelphicum and superbum.

Plant liberally in September or early October of irises. Obtain a collection of named varieties and acquaint yourself with this splendid family of easily grown plants. It has been fittingly called "The poor man's orchid"—the name is excellent. In bloom, in richness of coloring, in beauty, in delicacy, in freedom of flower, in hardiness, in ease of cultivation, nothing exceeds the iris. It requires little and gives much, grows rapidly, increases itself and affords a succession of bloom from April to July. In matter of height, it affords varieties that are extremely dwarf and others that stand four feet high. The foliage is always effective, and varieties can be had with variegated leaves to lend color to the iris border even when the blossoms have passed. The following list of varieties includes the best of the "German" division and presents the varieties in their order of blooming, beginning about May 10. Inches refer to length of flower stalk; S. signifies standard or erect petals of the flowers and F. signifies "falls" or drooping petals.

Florentine. Twenty-six inches. S. and F., pearly white. Very large and fragrant. The Iris from which orris root is made.

Sappho. Thirty-two inches. S., violet blue; F., rich blue purple. Very early and large. Fragrant.

Gertrude. Twenty-four inches. S. and F., rare violet blue. Very beautiful. A Peterson seedling.

Gracchus. Twenty-eight inches. S., pale yellow; F., yellow deeply reticulated brown.

Sans Souci. Twenty-eight inches. S., golden yellow; F., crimson brown. The brightest yellow we have.

Queen of May. Thirty inches. S., lilac pink; F., lilac blended with white. Distinct color. Fragrant.

Celeste. Thirty inches. S., pale lavender; F., deeper lavender. Fragrant.

Judith. Twenty-four inches. S., sulphur; F., velvety violet purple.

Harlequin Milanais. Thirty-four inches. S., white flaked violet; F., rich violet



HYACINTHS

reticulated with white. Orchid-like, very striking, large bloom.

Madame Chereau. Forty-two inches. S. and F., white, elegantly frilled with violet. Slightly fragrant. The tallest of all.

Fairy. Thirty-six inches. Ivory white, with pale violet veining. Very delicate and fine. Very fragrant.

Albert Victor. Thirty-two inches. S. and F., deep blue lavender. Very fine.

Darius. Thirty inches. S., lemon yellow; F., purple, bleaching on edges and tip to pale yellow. Large flower.

Roseberry. Thirty-two inches. S., plum purple; F., rich velvety purple.

Maori King. Fourteen inches. S., golden yellow; F., rich purple, edged yellow.

Dalmatica. Forty inches. S. and F., fine clear lavender. Large, tall and very fragrant. Known also as Princess Beatrice.

Aurea. Twenty-six inches. S. and F., solid chrome yellow. No markings. No fragrance.

Speciosa. Thirty inches. S., lavender, F., dark reddish purple. Very fragrant. Often nine or more flowers on a stalk.

Ulysse. Thirty inches. S., dark tinged bronze; F., purple. Very odd and striking combination.

Sir Walter Scott. Twenty-eight inches. S., yellow; F., rich crimson brown. Very late.

Pseud-Acorus. Thirty-six inches. S. and F., clear yellow. Flat bloom, fine long foliage.

Bulbs should not be planted with less purpose than other plants. Use them in corners, in borders, in shrubberies and between herbaceous plants, wherever space permits. Hardy bulbous plants may be used effectively in borders by themselves, and occasionally bold clumps of the taller plants of the sort may not be ineffective when given a somewhat isolated position. In almost every instance, however, they show best when supplied with a background of shrubbery or of taller growing plants.

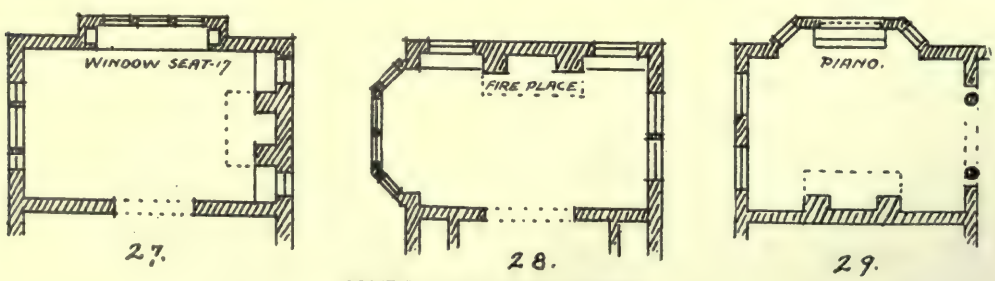
Construction Details of the Home

Windows—Their Location and Design

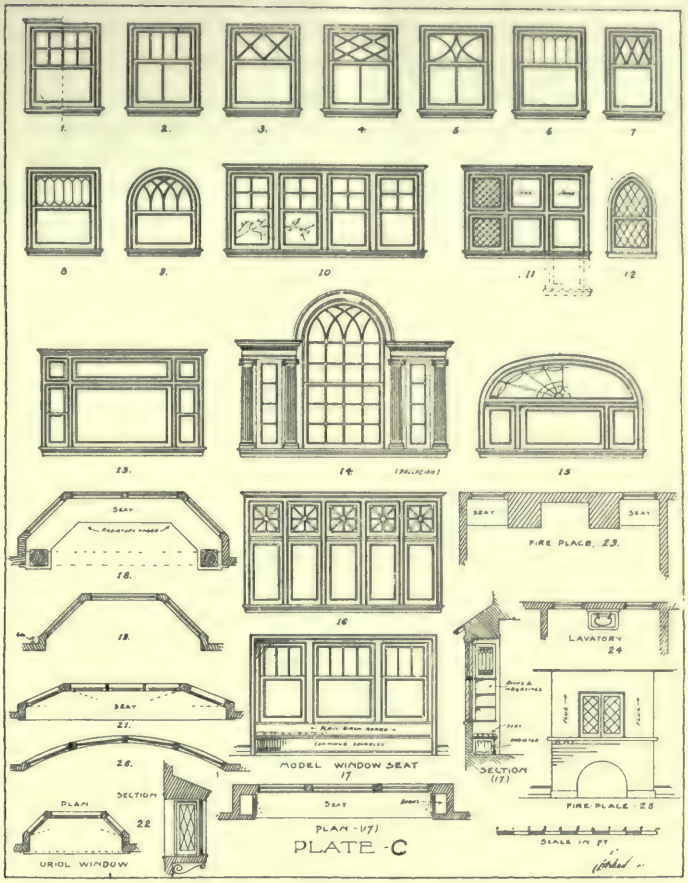
(Continued from the September issue)

THE exterior location of the windows should be carefully studied, keeping them in harmony with each other, both as to arrangement and design.

First study your principal rooms and their location with reference to the outside world. For example, when the living room is large, splendid opportunities are usually offered for window effects. If one end looks out toward the stable, build your fireplace there with small windows on each side. Under the windows put either seats or bookcases (plan 23). These lights should be casement windows that swing on hinges and have either divided lights or stained glass. If the long side of the room affords a good view (plan 28), build there a broad bay or a deep window seat (plans 17, 19). There is nothing that makes a room more homelike than a broad expanse of windows. If a bay window is desired make it not less than eight feet wide and three feet projection. It is advisable to make it somewhat larger. The principal advantage of a bay is that it gives an outlook in several directions, adds considerably to the size of the room and makes a splendid place for large plants. A deep window seat, plentifully supplied with pillows, is always a cosy place. It should be at least nine feet long (three windows wide). Make the seat two feet deep and sixteen inches from the floor; use spindles in the front, half an inch apart, and place a fourteen-inch radiator (or hot air register) behind them, thus having your radiator entirely out of sight. The seat should have a hinged lid. Plant 21 combines the principal features of a bay window and window seat; the windows can be sliding instead of casement, as shown. All bays, when on the first floor, should be built down with foundation in the ground and not supported by brackets. If the side opposite the fireplace of the room has an outside exposure, place here two independent windows or a group, as shown by design 13. The side lights of this group can be made wider if desired. A good wall space must be left for the piano, bookcase, etc. Plan 28 gives a splendid location of windows in a living room where the principal views are from the ends and not from the side of the room. Instead of the windows on each side of the fireplace, over bookcases, oriel windows can be used (sill four feet from floor, design 22). Oriel windows are picturesque, both inside and out, when used in appropriate places. They also afford



SOME TYPICAL LIVING ROOMS



TYPES OF WINDOWS

splendid opportunities for stained glass effects. One of the principal uses for oriels on a house is to give light and air from a side of a room which would not give a pleasant outlook. Small high windows of the regular kind serve the same purpose from a practical standpoint, but they are tell-tale. One is always tempted to go up to them and find out what it is outside that is not a desirable adjunct to the room. Oriel windows on the other hand give the appearance of being used simply as ornamental features but they also at the same time serve the more practical purposes.

The piano always appears to take up a great deal of room. To overcome this it can be placed in a bay (plan 29). Make the projection of the bay three feet six inches and the straight side, for piano, eight feet long. On the oblique sides build full length sliding windows. Over the piano place a stationary window two feet by five feet, with a leaded or delicate stained glass design.

For the dining room the same general suggestions can be applied as given for the living room. If a bay of a different kind is desired, adopt plans 18 or 26. Plan 18 will look well in any room on the first floor (kitchen excluded). If the room is connected with other rooms or hall by openings with columns, the columns of the bay should be the same as the columns of the openings. The compass window shown (plan 26) is graceful but somewhat expensive. To curtain a compass bay, drape two full length cur-

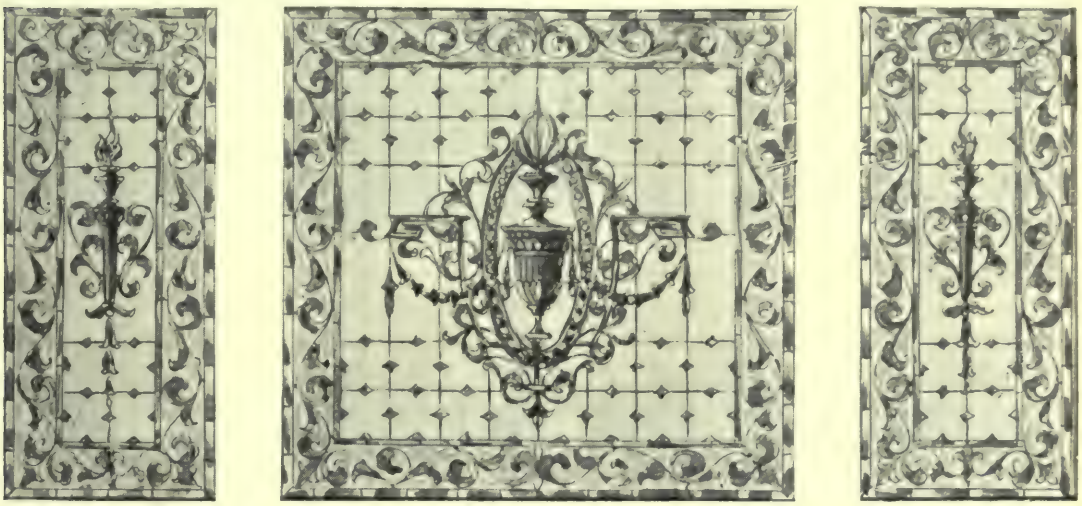
tains at each side and drape between them a valance (same as hung from the tester of a bed), hanging it from the top of the windows in folds about twenty inches deep. A picturesque way of building in the dining room windows is to build them in combination with the built-in sideboard, if there is to be one. Here is usually a good opportunity for a little art glass, but not too much of this art or stained glass in one house. The sill of kitchen and pantry windows should not be less than forty inches from the floor. Forty-eight inches is better.

If the stair has a broad landing a beautiful effect can be had by using windows 14 or 16 if the house is Colonial, and design 11 if it is English. The Palladian window (No. 14) is very beautiful. It can also be used in the living room if the latter is a large one. The Wyatt window, (16) a good design, is the same as the Palladian with the arch off, the cornice going straight across unbroken. Design 16 can be from three to six lights wide. To obtain a circulation of air, transom lights should swing in from the bottom with transom lifts, or the lower lights swing from the side. This also applies in every respect to design 11. The bedrooms offer many hard problems. The windows must be arranged with reference to the windows of the lower story. Good views are often to be had from bedroom windows, and they should be taken advantage of. At the same time valuable wall space, which will be needed for bedroom furniture, should not be sacrificed. Design 10 makes a pretty bedroom group. It can be reduced to three or even two windows. All windows in the bedroom should be made to open in some manner. It is best to have windows on two sides of the room. This is not necessary but desirable. Plan 24 is particularly commended for the bathroom. It admits the light on both sides of the face for shaving, etc.

After locating the windows properly, they should be made beautiful in themselves. It is upon this principle that the artistic filling of windows with broken or divided lights is placed. Some division alone gives pleasure, but due regard should be given to the sizes and shapes through which the light passes. Designs on plate C, can be leaded or made with wooden bars. Design 1 is the common type of the colonial window. It always looks well in a colonial house and sometimes looks well in an English house. In early work divisions were used in both upper and lower sash. It is best, now that larger lights can be had, to divide only the upper sash where they do not interfere with the view. It is advisable to make the upper sash smaller than the lower, thus raising the meeting rail above the level of the eye. Design No. 2 is but a simplification of No. 1, and looks well, as is seen where used in design 17. Design 9 can be applied to a square top window with good effect.

Stained and Colored Glass.—The difficulties of color radiation presents a subject too complicated and technical for proper analysis within our brief space. But a word of warning. A poor color effect, even from a single window, will destroy the otherwise homelike atmosphere of a room; while a pleasing stained glass design, throwing a halo of colored light throughout a room, will often alter its previous somber aspect and make it look beautiful indeed. One of the principal difficulties encountered in the use of art glass is to get the proper harmony between the stained glass and the general color scheme of the room. The best guide is to use only "warm" colors or "cold" colors, as we speak of them, for both glass and wall decoration, for example, if the room decoration is in blue, brown, yellow, red, etc., should not predominate in the stained glass. Due regard should also be given the location of the stained window with reference to the sun. Brighter colors can be used on the

north side of the house than on the south. A very picturesque art glass window came to the writer's attention a short time ago which served an appropriate, practicable and ornamental purpose. It was in a finely appointed bathroom. The window was of the casement class, about 24 inches by 42 inches. The lower part of the window (which is ordinarily screened in a bathroom) was a lake of lily pads with several large white lilies in it in full bloom. From among the pads long sword-like leaves curved gracefully upward into the clear glass above, through which one could see the blue sky furnished by nature to complete the picture.



AN ART GLASS DESIGN FOR TRIPLE WINDOW SUITABLE FOR COLONIAL ARCHITECTURE

A common fault with sliding windows is that they **stick** and will not slide. This can often be obviated by beveling off about an eighth of an inch of the outward edges of the sash for it has been found by experiment that it is these right angled edges coming in contact with the angle formed by the stop bead and frame that is usually the cause of the trouble.

In conclusion the following suggestions are made: Place your radiators under the windows, below the level of the sill. It is where the cold air comes in. It is best to have all windows so that they can be opened for ventilation; the center window of a group being a possible exception. Marble sills for first story windows will not be a great expense and make splendid places for setting plants. If desired these sills can project over the top of radiator when latter is placed below the window. Felt edge window strips are advisable for keeping out dirt and cold. Outside blinds are attractive for colonial homes, but windows must be located so that blinds do not, when open, lap onto each other or onto other windows. Window boxes are appropriate for English houses. Outside trailing vines enhance the beauty of any window. Build the cellar windows under the windows of the first story and make glass not less than ten inches high. Lower sash of each window should be provided with strong sash lifts securely fastened to lower rail. Window pulley should be large (2½ inch). Brass chain is better than sash-cord. Provide windows with good locks. Consult a glass designer for colored glass effects. Always bear in mind that your windows make the personality of your home.

Some Decorative and Inexpensive Curtain Schemes

By MABEL TUKE PRIESTMAN

IT is always a problem what materials to choose for curtains, and too much thought cannot be given to this all-important subject. Every season new fabrics are brought out designed to harmonize with the new wall papers.

We have long been familiar with the beauty of Upholsterers' velvet, silk tapestry and Paviar velvet. The two former are plain, and when the wall is patterned, nothing can be in better taste than either of these fabrics. They come in such a wide range of tones and colors that any scheme can be made harmonious. The Paviar velvet is two-toned in effect, and has an interesting stripe which gives it a richness far superior to plain velour. Another plain fabric that cannot be too highly recommended is the Arras or Craftsman's canvas. This is best used for portieres in a hall or in a room furnished in Craftsman's style. It is not so suitable for curtains, as sunlight detracts from its beautiful coloring in time, but when used for portieres, it holds its color indefinitely. A very decorative way to use the Arras cloth is to trim it with one of the new tapestry borders. Many of these are four or five inches wide, and have birds and flowers in old reds, greens and browns on an old ivory ground. For a room with raftered ceiling and massive furniture, the Arras and tapestry bordered portieres are in perfect taste.

The fashion of plain walls gives opportunity for very **voyant** curtains. Of our illustrations, No. 1 shows a living-room papered with broad green stripe with inner curtains and slip covers for the furniture in one of the new bird cretonnes. The curtains at the window are lined and interlined, and are treated in a novel way, as they show no curtain pole. A box of wood is fitted over the window, and the pleated valance attached to it. The sash curtains are of Filet net, showing quaint mediaeval figures, perhaps the most popular curtain material of the day. A narrow edge finishes them off at sides and bottom. Portieres of the same material are used in the doorway. The charm of this country living-room must be seen to be appreciated. Everything in the room is dainty in the extreme. The embroidered table cloth is replaced in winter by something more seasonable, and the removal of the slip covers shows plain furniture covering toning well with the cretonne curtains which are used both summer and winter. Another illustration, No. 2, shows a view of the portieres. The door leading into the dining-room shows the cretonne used in all the doorways that open into the hall. A few years ago it would have seemed incongruous to use so light a curtain in the doorway of a hall, but fashion decrees that imported cretonne and linen taffeta are la mode, and those who have furnished accordingly are quick to realize the charm of such hangings. Usually a red room is somewhat overpowering. Illustration No. 3 shows how cleverly a cretonne curtain with red predominating assimilates



No. 1. TRIPLE WINDOWS HUNG WITH GAY CRETONNE CURTAINS AND VALENCIENNES ACCENTING THE ROOM COLORING, THE WALLS BEING SOFT GREEN



No. 2. THE BIRD CRETONNE IS USED ON THE LIVING ROOM SIDE OF THE CURTAIN, WITH A CLOSER COVERED CRETONNE ON THE HALL SIDE



No. 4. A WESTERN WINDOW WITH ALEYTH CLOTH CURTAINS, A FADELESS MATERIAL



No. 3. HERE THE VENETIAN RED OF THE CRETONNE HARMONIZES WITH THE TWO-TONED WALL PAPER AND PLAIN RED CARPET



No. 5. TAN COLORED ENGLISH CASEMENT CURTAINS ON TRANSVERSE CORDS WITH THESE NO SHADES ARE NECESSARY

the pure Venetian red of the room. The two-toned stripe paper and plain red carpet fairly melt into the green and red cretonne curtains. The ivory paint and ground of the same tone in the chintz give just enough relief to hinder the room being dark. Plain scrim sash curtains with a Vandyke edge are hung at the windows.

A fabric that has been long enough in the market to be tested by good housekeepers, is the "Aleyth" cloth, a transparent curtain material warranted not to fade. It comes in all colors, and not only holds its color, but holds its shape, not washing up or stretching, as is so often the way with sash curtains. Most housekeepers realize what a boon this is, who have had the trials of expensive net curtains shrinking or lengthening several inches after their first bath. Green Aleyth cloth is shown in the triple window, No. 4, which gets all the afternoon sun. These curtains have been up three years, and have stood the test of frequent launderings. The shade of green has not changed in the least since they were first put up.

Many people have a great objection to shades, and the English method of hanging a double pair of sash curtains is shown in illustration No. 5. Traverse cords are used with both sets. The top row are usually kept closed, and each pair in the lower sash slightly pulled back. Where there are shutters, they do away with the necessity of shades, and are very charming in themselves. They are of linen color, and the material is Casement cloth. (To be continued.)

Designs for the Home-Builder

IN selecting a house for a home one should look ahead a little. The house that is well planned has artistic lines and pleasing color of materials may or may not cost more than a good commonplace house, but it will certainly sell for more if the owner did want to dispose of it.

Again, a house should not be so much better than its neighbors that it would have to be sold at a sacrifice if at all Those able to purchase a desirable house at a good price will look well to the surroundings and to the possible future of the location. It is better to give careful attention to these matters before because there will be abundant opportunity to think it over when it is too late Among these designs are several that are of unusual merit.

Design B 283.

This cement house is typical of our best modern achitecture and is built of hollow tile. The beauty of the exterior is due to the unbroken roof lines, the grouping of the windows and the massive chimney.

The porch is covered only in part to admit a great amount of light in both the living and dining-rooms. The roofs are covered with red slate. The trimmings are brown, plaster cream, and the porch floor is cement marbled off into tiles.

Note the splendid proportions of the living-room with its fireplace at one end, from which one can see the buffet of the dining-room through the cased opening. The lavatory and passage to kitchen and basement under the stair is a convenience. The pantry is well placed and nicely fitted up. The sink with its long drain boards and cupboards on either side is a feature of the kitchen.

Oak is used for finish and floors of first story except kitchen in natural birch. The second floor has three bedrooms, each with a good closet, and off of the hall in the wing is a sleeping porch which can be enclosed with glass in the winter and heat provided, thereby giving a fourth bedroom. Finish, pine painted or enameled. Hot water heat, laundry and storage in basement. To gain the long low effect to the exterior no attic is provided as there is ample storage space in the wings at left of sleeping porch. Size, 36 feet by 32 feet without porch. Note the irregularity of plan outline. The architect estimates the cost at $4,500 to $5,000. A saving could be made in wood construction.

Design B 284.

This design is very homelike with its gambrel roof, wide entrance, porch and well-placed shrubbery. Cream siding, white trim and green stained roof form the color scheme.

The octogon hall containing fireplace, stove and columnal openings to sitting-room, is the feature of the plan. There is a small conservatory, a built-in sideboard, an oriel window in the small parlor and the stairs are in combination from the kitchen.

The finish and floor are of birch natural, except the four chambers and bathroom on the second floor, which are enameled in white and ivory. The basement contains laundry, hot water plant

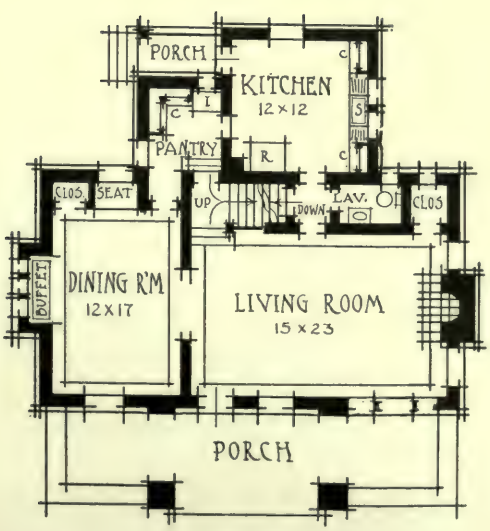


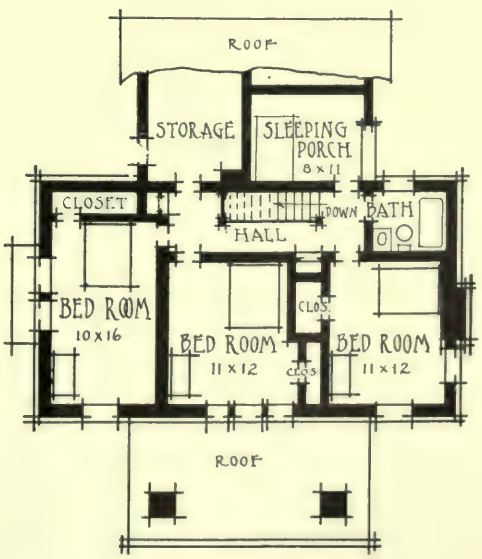
—John Henry Newson, Architect

A Stucco Exterior on Tile

Its Beauty Is Due to the Unbroken Roof Lines

DESIGN B 283





and storage-room. Size without projection is 30 feet by 30 feet.

The conservatory projects 4 feet and the front porch 8 feet.

The cost is estimated at $4,250.

Design B 285.

There is a special charm in this little stucco veneered house with its "Mission" gables and wide projecting eaves.

The little hooded and recessed entrance porch protects the front door which opens directly into the hall without vestibule. The living-room with its beamed ceiling, fireplace and symmetrically located windows is a magnificent room. The real porch is at the rear through the French windows. A door to the entry makes it possible to serve the porch from the kitchen, making a secluded outdoor dining-room. The dining-room at the right of the hall is of ample size and a fly door communicates directly with the well appointed kitchen. The finish is of gum wood throughout and the floors of the first floor oak, except kitchen, which with those on second floor are of birch. Upstairs are three chambers, a bathroom and a sleeping porch. Size without projections, 35 feet by 24 feet. Hot water heat. The architect's record gives the contract price at $4,495.

Design B 286.

This cottage design is ornate and different from the ordinary cottage. Standing with the wide front to the street, the piazza across the right hand side and the pergola treated entrance at the front and end of the piazza, this plan leaves the whole front living-room to the street, making a very pleasant room, with three wide windows protected by outside blinds. There are but five rooms, with an attic storage space in the rear of the second story. The one large chimney provides a furnace and kitchen flue and a wide fireplace in living-room. The dining-room is opened full wide with the living-room and both rooms open out with French windows onto the piazza. The kitchen, pantry, and two closets complete the first floor. The finish is in pine stained dark Mission and the floor of oak, the second floor is of birch and the doors of pine enameled white. The estimated cost, exclusive of heating and plumbing is $2,000. The basement is full, size of main part, 23 feet by 23 feet, with cemented bottom. The exterior wall shingles may be stained light brown and the window casing, cornice, etc., painted light cream color, the roof shingles stained dark brown. The window blinds should be light cream color, same as the trimmings and the window sash painted white. This combination will be very effective and artistic.

Design B 287.

This home at once attracts the interest of the passerby. The walls are shingled and stained a light brown, with a roof of dark green. The trimmings are in ivory white. The individuality of the design is derived from the treatment of the front gable and the graceful sweep of the roof. The reception-hall contains a seat, the stairway and its ceiling with that of the living and dining-room is beamed.

A beautiful vista is obtained through timbered arch to hall looking toward the stair landing with its seat and casement windows. In the living-room is a tiled fireplace. A broad window ledge in the dining-room may be used as a sideboard. The finish and floor are of oak for the main rooms with natural birch in the kitchen and pantry. There is a convenient little rear porch with space for refrigerator.

Note the splendid proportions of the owner's chamber with its four windows

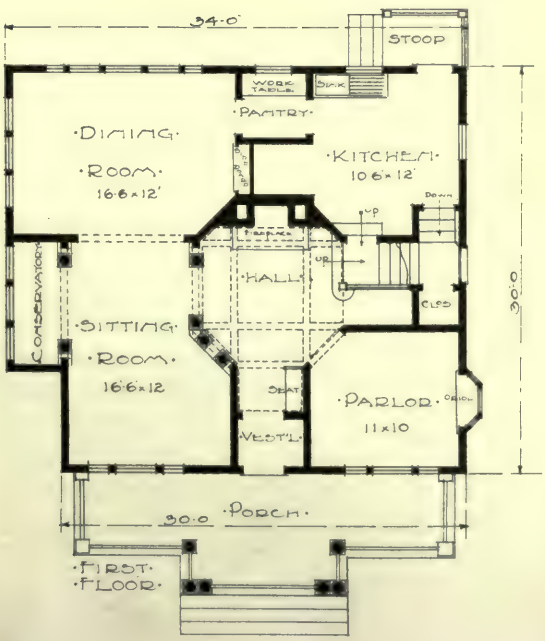


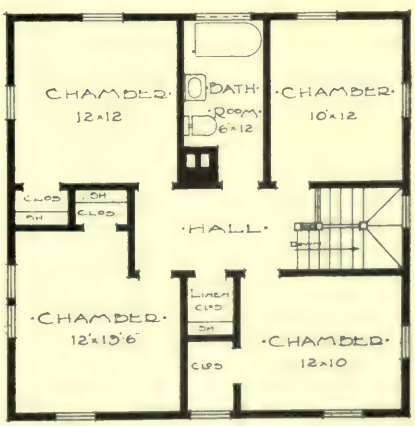
Adapted by Builder from Similar House

A Modification of the Gambrel Roof

Note the Roof, the Wide Entrance Porch and Well Placed Shrubbery

DESIGN B 284





SECOND FLOOR

opening onto the balcony. Two chambers could be made of this if desired. Two other chambers are provided, one designated guest's room and the other maid's room. The linen closet is off the bath-room and there is a medicine cupboard over the wash bowl. Note that each room closet has an outside window affording light and ventilation. These rooms may be furnished in birch, natural or stained, but many prefer paint for chambers. Hot water is used for heat and the basement is well appointed. Size, 32 feet by 32 feet.

The architect states that the house was built without heat for $3,400.

Design B 288.

This is a particularly pleasing design after craftsman ideas, being covered with large shakes to receive a coat of stain, with a great projection of cornice, almost Swiss in its character. Entrance is made from a hall with coat closet, to the pleasing living-room with bay. The dining-room contains a pretty ledge window and is served from the adjacent kitchen which is very complete with stove, sink and ice box. The entrance to basement is also from the kitchen entry. There are two chambers and a bathroom with linen closet located upon a private passage, which leads to a screened porch, intended for sleeping or dining purposes. The finish and floors are of Washington fir throughout.

Height of story 9 feet. Attic for ventilation only. Size, 27 feet, 6 inches by 41 feet. This is an especially attractive little home, the arrangement of rooms being somewhat unique and the rear porch being an especially desirable feature on account of the privacy possible. It is estimated that this bungalow can be built complete with furnace and plumbing for $2,900.

Design B 289.

It is this kind of house that gives one the most for his money. That is, of the essentials without any frills. Such a house should be very simple in its details but they should be very correctly drawn and proportioned if the proper architectural effect is to be produced. Then it will have a quiet dignity all its own.

The front porch is provided with fluted Doric columns and the Colonial doorway has the usual sidelights of leaded glass. The hall and living-room are almost one room, so wide is the arch between. The den with fireplace can be opened wide into the living-room with sliding doors. The dining-room, pantry and kitchen are located to the left of the hall with a coat closet opening into same. The finish and floors are of birch throughout, finished natural except in chambers and bathroom, which have a coat of enamel.

The basement contains laundry and hot water plant. Size, 31 feet by 28 feet.

The exterior will look well in either siding or stucco. The architect estimates the cost at $4,000.

Design B. 290.

This house is of concrete construction up to the second story, the basement walls being solid and above ground, a 2-inch tile is set in the center of the 10-inch wall to form an air space. Above is the usual balloon construction plastered in stucco between half timbers as shown. The arch and ornament about the entrance is all moulded in cement directly upon the work as it progressed, only the rough outline was cast between planks. The effect is very "English" with its half timbering, diamond window panes and flower boxes.

The timbers are stained brown and the roof red, a good combination with the



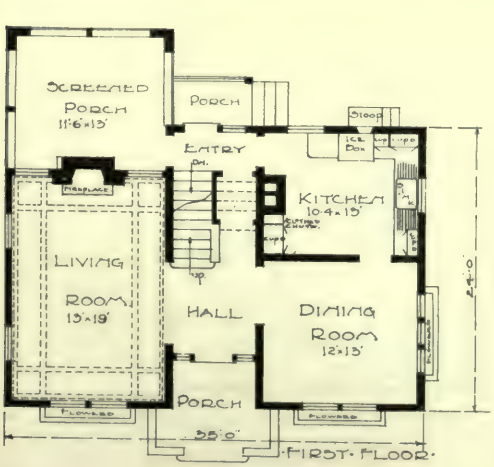
Dorr & Dorr, Architects

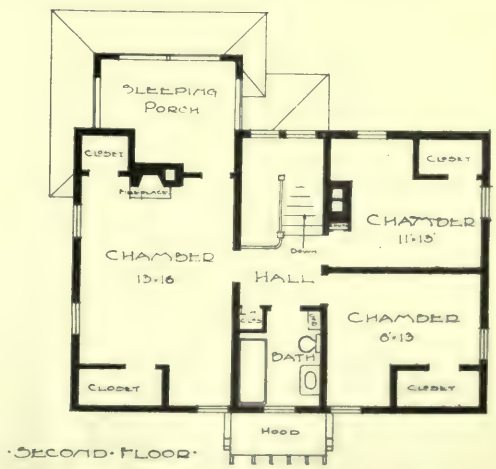
Mission Gables and Wide Projecting Eaves

The Wet Stucco, as Photographed, Suggests the Possibilities of a Small Clinging Vine

DESIGN B 285

grey cement stucco. The living-room takes the place of a reception hall proper with a stairway and fireplace in gothic arched openings as a feature of one end. On the right through similar arches and columns is the parlor which in turn opens through a wide cased opening to the dining-room. There is also a door







Chas. S. Sedgwick, Architect

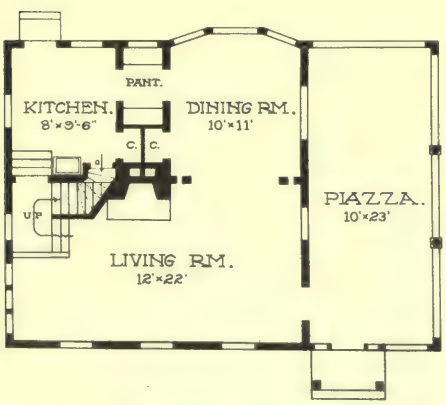
A Shingled Cottage on Unique Lines

Note the Beauty of the Entrance Pergola and Porch and the Broad Presentation to Street

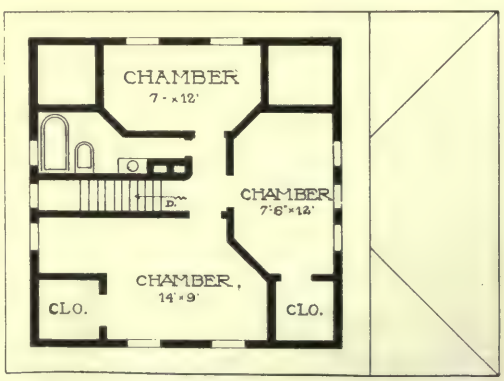
DESIGN B 286

from the living-room to dining-room. Oak is used for finish and floors except for kitchen which is natural birch.

On the second floor are four chambers, a very large sewing-room and a bathroom. Birch is used except for bathroom which is white enameled. There is a good attic unfinished with



FIRST FLOOR PLAN



SECOND FLOOR PLAN



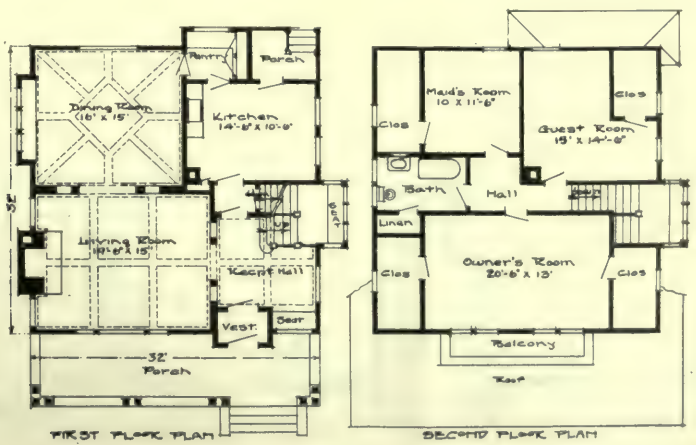
Rollin S. Tuttle, Architect

A House That Attracts

The Treatment of the Front Gable and Graceful Sweep of the Roof Gives Individuality

DESIGN B 287

stair to same. A grade door is located on the stair to basement which contains laundry, fuel bins, hot water plant and storage rooms. Size, 32 feet by 32 feet, without projections. The house was built on a percentage basis and exact figures are not obtainable. It is estimated to cost $5,500.

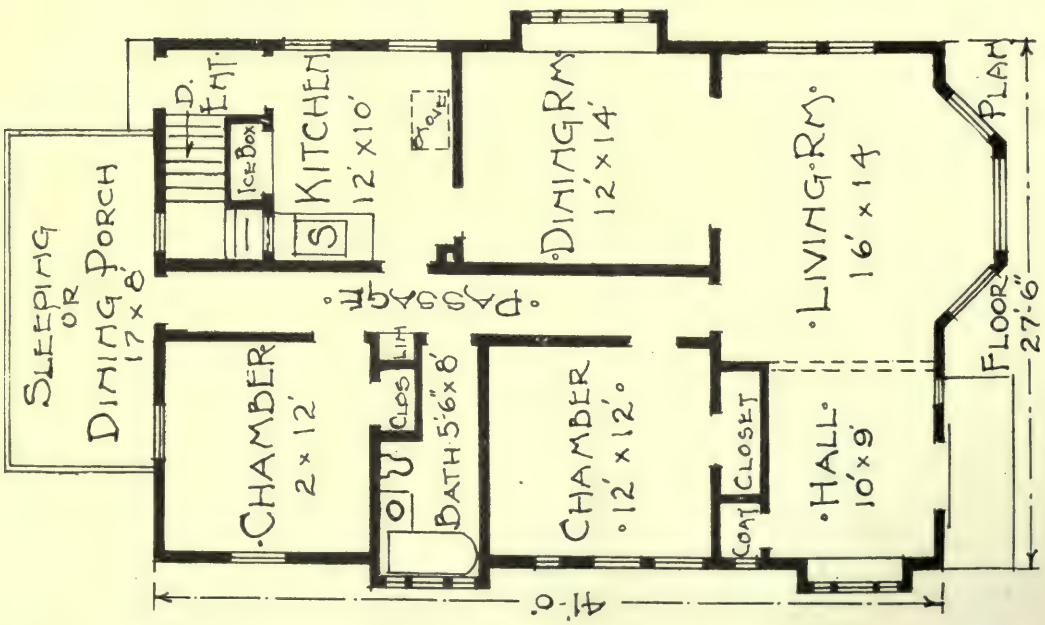




A Bungalow After Craftsman Ideas

Two Excellent Features Are the Entrance Hood and the Ventilating Lattice of the Gable

DESIGN B 288



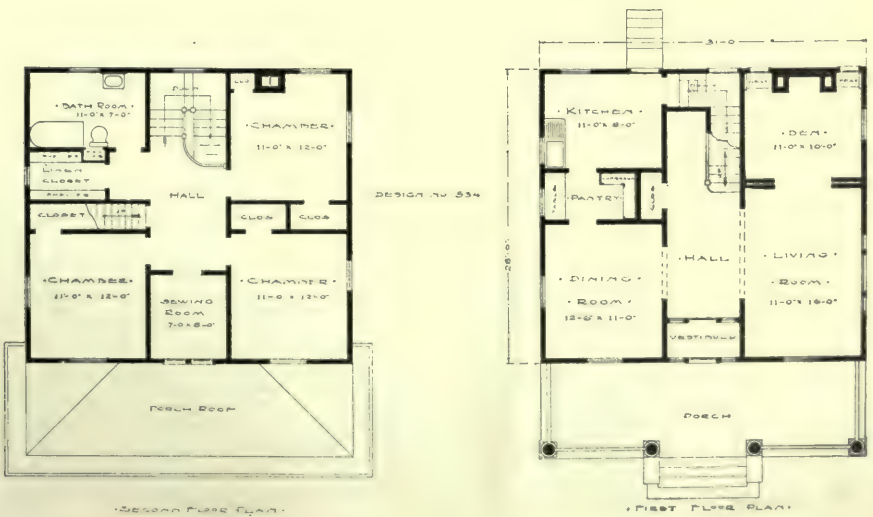


Arthur C. Clausen, Architect

Possessing a Simple Dignity

Without Purity of Detail the Effect Would Be Lost

DESIGN B 289



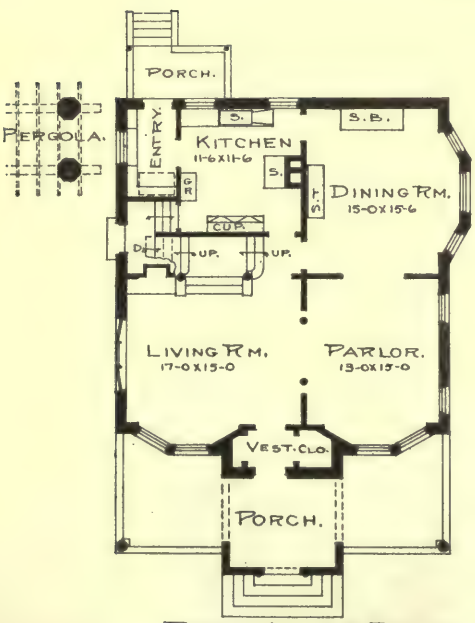


Fremont D. Orff, Architect
H. Edward Walker, Formerly Associated

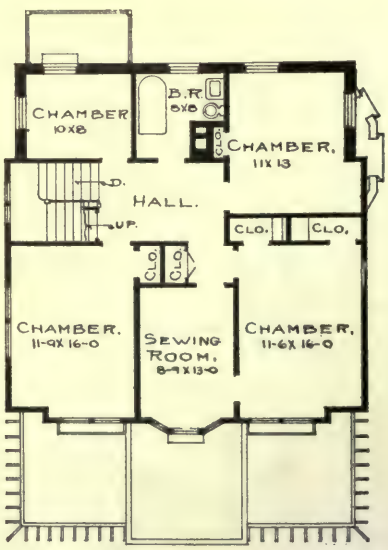
An English Design in Cement and Half-Timber

The First Story Walls Are Monolithic Concrete With Frame Construction Above

DESIGN B 290



FIRST FLOOR PLAN.



SECOND FLOOR PLAN.

SARGENT



Hardware

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SARGENT & COMPANY, 151 Leonard St., New York

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Conducted by ELEANOR ALLISON CUMMINS, Decorator, Brooklyn, N. Y.

What to Do with Doors.

IN looking over illustrations of foreign interiors, one notices the prevalence of doors frankly in evidence, and evidently intended to be shut. The American conception of making one large room of a floor, with no provision for privacy but draperies, is non-existent on the other side. Moreover, doors are made quite an architectural feature, beautifully proportioned, with varied arrangements of panels and effective mouldings. The attention which we concentrate upon our entrance doors is given to every door in a house.

We may profitably borrow from our European cousins in this matter. There are certain styles of decoration to which visible doors are essential. A colonial interior with openings closed in by portieres is an anachronism. Hangings belong to an early period, dating back to the days when skins or heavy stuffs were used to shut out the icy wind of winter from the great hall of the castle. In the eighteenth century, from which most of our decoration dates, they had learned the comfort of doors, shutting snugly and inclosing the warmth and cheer of the circle about the health. We, to be sure, elect to leave our doors open, except on special occasions, but they should be to some extent in evidence, with the suggestion of use at need.

Often, of course, especially in old houses, one finds doors which are something of a nuisance. Builders have a tendency to make too many openings in the walls of a room. Sometimes a door is quite useless as an exit, and interferes with the arrangement of the furniture. Sometimes some peculiarity of proportion or eccentricity of paneling makes it desirable to distract attention from it.

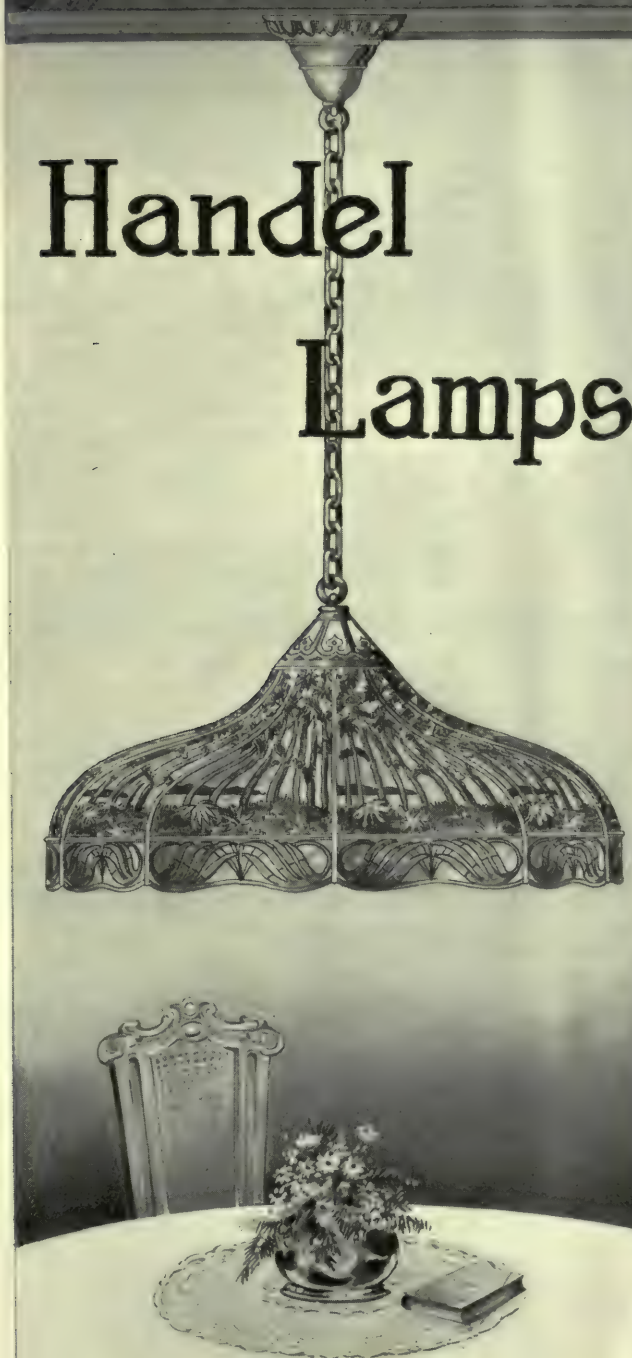
If the undesirable door occurs in a bed-room there is one obvious thing to do with it, to cover it with a sheet of looking glass and let it serve the purpose of a cheval glass. It is much more satisfactory than that piece of furniture and the cost is a fraction, as the mirror need not be anything but a good quality of German plate. The usual way of applying it is to let it stop just at the outer line of the panels, finishing it there with a narrow moulding painted or stained to match the wood of the door. It is rather essential to the good effect of such a door that it should be flush with the frame.

A Shallow Bookcase.

When a door is deeply recessed it can be converted into a bookcase, or even a shallow closet. In old houses with thick walls, a door opening into a second room will often be recessed as much as eight inches, and this space can be filled with narrow shelves, which will accommodate quite a number of books of moderate size. The arrangement looks better if a paneling is carried up about two and a half feet from the floor to the level of the first shelf, and that shelf made to project a little beyond the line of the door frame. A desk may be improvised by having this shelf wide enough to write upon, and by carrying it out to the edge of the door frame.

If, by chance, the door should happen to be an arched one, a quaint little china closet can be made in the same way. The first shelf above the paneling should have a straight front edge, the others be curved in slightly, toward the centre. The use of a glass door is optional. Such a closet

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is excellent for the display of a collection of pewter or of plates.

A Door as a Background.

Very often the useless door is an admirable background for something which needs one. I have seen a plaster cast standing in front of a door of dark wood which threw it out quite as well as a drapery would have done. Occasionally a picture may be hung against a door with excellent effect. Theoretically it is all wrong, but it is one of those things which are justified by the result. A better way of using a door as a background is to fill the frame with some sort of a hanging and set the thing to be relieved against it. A soft green hanging is a charming setting for a blossoming plant, and golden brown or gray looks well with palms and ferns.

The cretonne furnishings of a bed-room may be supplemented by covering a door with a hanging of the figured material, and standing a chest of drawers, a dressing table or a desk in front of it. The flowered fabric throws out the dark wood delightfully.

A Wall Basket and Vines.

When a single door stands open between two rooms and is seldom closed its space may be utilized for one of the charming pottery or terra cotta wall baskets, filled with trailing vines. Of course the cream colored Italian terra cotta ones are far and away the best. They are not expensive and they combine delightfully with the tender greens of the trailing vines. For the vines either tradescantia, the plain sort, or the old fashioned German ivy are most saisfactory, both of them growing luxuriantly in water, and not needing much sun.

And a capital use for the lower part of the door is to have fixed to it some sort of a portfolio arrangement for unframed pictures. This may be a hinged piece of wood, held in place at the top by metal catches, or it may be nothing more than a portfolio of binders board, covered with denim or with burlap.

Combining Different Woods.

One point on which the average person needs instruction is that oak and mahogany should not be put in the same

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room. If one happens to have good black walnut furniture there is no serious objection to using it with mahogany, although it is just as well to put the walnut pieces at one end of the room and the mahogany at the other. But mahogany and golden oak are hopelessly incompatible.

So, if you cannot afford to have all the furnture of a room in mahogany, as may well be, get well made and well stained birch which, later, may retire to the upper regions. It will not cost any more than oak, and most people will not distinguish it from mahogany, if you are careful to get a good color.

There is always the alternative of buying good wicker furniture, which is effective in combination with hard wood, and helps to set it off. The average drawing-room is far more comfortable with a wicker davenport and two or three capacious arm chairs, with tables and cabinets and a small settle in mahogany, than when furnished entirely in mahogany, as most of the upholstered furniture with mahogany frames is extremely stiff.

In buying wicker furniture it is desirable to study the proportions carefully. Much of it is very ugly, owing to the eccentricity of the shapes and to the disproportionate height of the backs. The best wicker furniture is square rather than curved in outline and the backs of chairs and couches are only high enough for comfortable support. One specially good piece is a couch six and a half feet long, with low back, loose cushions and projecting arms, its lines suggesting the deck and lounging chairs of Chinese willow. As a rule the absolutely plain weaves should be chosen. Wicker is not a material which lends itself to curves.

The Revival of Rush Mats.

Everything comes back to its own in time, and exclusive New York shops carry oval rush mats in various sizes, and recommend them highly for bed-rooms. The largest size, for the centre of a room, costs eight dollars, while smaller ones for the front of dressing table or wash stand are two dollars. They have a quaint air that commends them to people who are fitting up old fashioned bedrooms.

Colonial Glass Bed-Room Sets.

Washbowl and pitchers in heavy Colonial glass are to be had almost everywhere, and are certainly admirable for some rooms. They seem to be just the thing for the bed-room with elaborate cretonne furnishings, as the average toilet set of flowered china is apt to look insignificant in contrast with the strong colors of the recent cretonnes. If the glass set does not seem desirable, a set in plain color, pink or green, is a better choice than the average flowered china.

Wall Papers in Black.

They have been using flowered wall papers with black grounds abroad, for some time, and they are beginning to make an appearance here. The few seen are exquisite, much in the style of the flowered organdies and foulards with black grounds, so popular some twenty years ago. It is of course impossible that these papers should ever be anything but a fad, but they are interesting in the abstract.

In using them for wall coverings, the woodwork must of necessity be black, and any color used carry out the tones of the design. All of them which I have seen have been variations of the theme of roses and leaves in pink and green, soft pastel shades, against a dead black ground.

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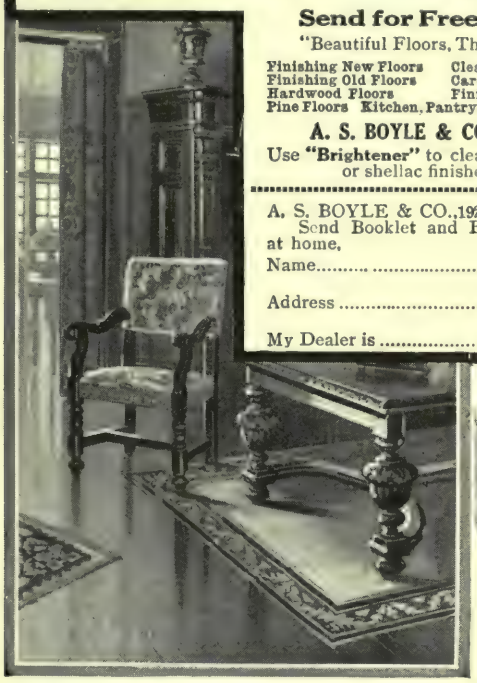
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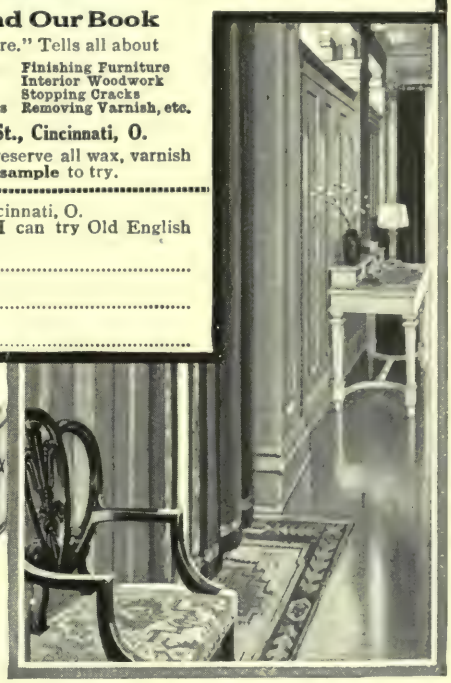
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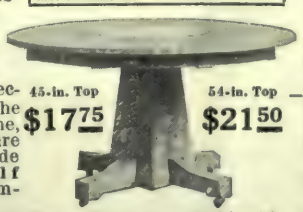


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ANSWERS TO QUESTIONS
ON INTERIOR DECORATION

Editor's Note.—The courtesies of our Correspondence Department are extended to all readers of *Keith's Magazine*. Inquiries pertaining to the decoration and furnishing of the home will be given the attention of an expert.

Letters intended for answer in this column should be addressed to Decoration and Furnishing Department, and be accompanied by a diagram of floor plan. Letters enclosing return postage will be answered by mail. Such replies as are of general interest will be published in these columns.

N. C. H.—I inclose sketch of floor plans of our new home. Will you please suggest colors for walls of all rooms? Also furniture and rug for living-room. I have just about decided to have paper in all rooms except kitchen (which will be painted). What would you say to that? Our house faces the east. First floor will be finished in red oak, rubbed to dull finish.

My dining-room furniture is quarter-sawed golden oak and the rug is a brown and tan Bundar Wilton.

Second floor will be finished in pine. I wish front bed-room done in yellow and the other one in blue. Please suggest color for bath-room. Maple floor in bath-room.

I wish everything to be durable, inexpensive, yet artistic and in good taste.

N. C. H. Ans.—Replying to your letter of inquiry would say that since the dining-room tones are already determined by the brown and tan rug and the golden oak, we will start there. Brown is rather a warm coloring for a southwest room, but the walls could be done in a soft tan and a frieze used at the top of the room, introducing much green. Then with green portieres in the arch, the living-room in a greyish brown tapestry, self-toned design, with large plain green rug and some natural wicker furniture mixed in, upholstered in green cretonnes, would make a pleasing combination.

Your decision to use paper is a good one, for tinting unless done by a first class artist is not satisfactory.

The bath-room should be finished with Keene's cement, wainscot height and marked off to imitate tile. Then painted ivory. Also, the hard plaster wall above and ceiling. White bath-rooms are the choice.

O. F. G.—I enclose plans for a bungalow and would like advice as to painting and decorating same. The living-room and dining-rooms are to have beamed ceilings and dining-room is to be paneled to height of 4 feet 6 inches. Do you think 9-foot ceilings high enough or do you advise different height?

Should furniture in living and dining-rooms be in fumed oak, or similar finish, or could mahogany be used? The house is to face west on a very high lot with but little shade.

Floors and finish of living and dining-rooms to be oak, finish in other rooms cypress with Georgia pine floors.

O. F. G. Ans.—Replying first as to your inquiries as to painting exterior. Inasmuch as the site of the bungalow is conspicuous—with but little shade, it is advised to use silver grey shingle stain on the body of the house, whether siding or shingle, and green on the roof of numbers and manufacture as enclosed; porch posts and window trim to be painted as near the grey of shingle stain as possible or the same stain could be used and posts sanded.

Nine feet is sufficient for bungalow ceilings. Old fashioned, antique mahogany furniture can be used in a bungalow and if some wicker be combined with it the effect is very good. If furniture is to be bought, fumed oak is much the better choice than modern mahogany. Fumed oak stain for interior wood will be in harmony with either style of furnishing. Send to manufacturer for sample of this finish; also for shingle stains.

As to wall treatment, one of the small figured greyish papers in rough textile effect, 75c to $1 a roll, would be a good choice for the living-room, with one large, plain green rug on floor and green used in draperies, etc. In my own living-room, same dimensions as yours, there is such a rug, size 9x14, made of Wilton Moresque carpet, $2.25 per yard, 36 inches wide. The woodwork is fumed brown, the wall

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grey and large square green tile for fireplace facings. The effect is most refined and restful. Such a rug can be made and sent you if desired.

For the northwest dining-room, there is a charming English chintz paper on a cream ground, which would be delightful above the oak wainscot. Cretonne draperies to match at the windows.

M. G. W.—I would like some advice as to finishing.

The house faces east, will have a porch across the east and south; at the northeast and southeast corner want a sort of bay window and will have two French windows on the east. Will have a fireplace in the parlor; double doors between parlor and dining-room; the northeast room I want finished so as to use rose colored draperies, etc. What kind of wood work would be suitable for the different rooms; also what kind of furniture? Can you tell me where I can procure mahogany furniture?

M. G. W. Ans.—Replying to your recent inquiries would say that since mahogany seems to be your choice for furniture in the dining-room, it will be best to make the woodwork in that room white. As it faces south, a delft blue and white dining-room would be a good scheme, with mahogany, for a bungalow dining-room. Mahogany dining-room furniture is carried by all our large house furnishers. The solid mahogany is, of course, expensive.

The finish of the kitchen, bath and bed-rooms had best be white, also; especially the northeast room, where it is desired to use rose colored furnishings.

A very pleasing stain to use in the living-room and hall, if one desired to get away from the universal brown stains, would be silver grey. This stain is beautitiful on oak or pine or gum wood and mahogany furniture could be used with it. Send for the catalog of Handicraft Stains of the manufacturer whose name is enclosed.

C. A. B.—We are about to erect a bungalow and wish to consult you about tinting of walls and staining of floors. The walls are to be sand finished. All woodwork brown mission finish (this means only the living-room and dining-room). I want to tint the walls tan but can't find just the proper shade. No. 26 on the enclosed card seems a little too light, although it is the right tone. The sample of pongee seems just about right to me. Do you know of anything I can buy for walls that shade? Now what shall I stain the floor?

C. A. B. Ans.—In regard to wall tints to be used, you are correct in thinking No. 26 of the color card enclosed too light for side walls with mission brown woodwork. It is a very good ceiling tint. The pongee sample sent is a delightful shade, but even that is a trifle light in tone for the side walls. It would be a perfect ceiling tone used with No. 29 for side wall, which I do not think would be too dark if the room is well lighted. Of course a good kalsominer can mix any shade perfectly to a sample. Enclosed is the name of a good ready made kalsomine.

The floors if oak can be left natural or stained to any depth of brown tone you desire. With such a color scheme we should use a brown stain over the filler, then shellac and finish with floor wax.

John Wanamaker

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The Esthetic Side of Housework.

PERHAPS it sounds a bit fanciful to speak of esthetics in connection with housework, but the cultivation of the picturesque side in housekeeping is the only way to redeem it from drudgery for most people. There is a select, or shall we say elect, number of people who love domestic work for its own sake, but people of that sort are few and far between, and only a change in the point of view can make most of us reconciled to the spending of long hours of each day over work which must be indefinitely repeated.

Yet there is another side to it all. To take a broader view, every one of the domestic processes may be fraught with untold possibilities for good or evil. Someone has traced out the story of a strand of rope, slighted in the making. A man's life was trusted to the completed cable; he fell and was killed; his family were plunged into poverty; his children grew up uneducated and untrained to take their places in the ranks of the criminal classes. And all this because one girl in a ropewalk slighted her work. And on the other hand, who shall estimate the economic and spiritual value of the perfect home, at whose foundation lies the careful doing of a multitude of little things?

With most women the realization of the importance of the household processes is not lacking, but their aggregate is so appalling that they become discouraged, and no attitude is more inimical to success than that. Just here comes in the value of that esthetic sense which is one of the most precious possessions of the human soul. With the apprehension of the picturesque aspect of the daily task there comes a lightening of the burden of its performance.

Think of some of the different processes. Even the despised dishwashing; is there not a charm of their own about porcelain and glass, immaculate and shining from their bath of hot soapsuds? And a pleasure in arranging plates and cups and glasses in orderly rows in the cupboard? Then all the cleaning processes sweeping and dusting, even scrubbing, what real satisfaction there is in the disappearance of the dirt and in the reappearance of the original spotlessness. And in a greater degree the same consideration applies to washing and ironing. It isn't making the two blades of grass grow where one grew at first, but the reviving of the original blade and giving it fresh beauty.

As far as picturesque quality is concerned, cooking takes the lead. The meats and vegetables and fruits offer a bewildering feast of color to the attentive eye, and when they are cooked there are other possibilities of form and texture to delight the senses. The idea that food should be beautiful to the eye as well as to the taste is comparatively modern, but its practice adds greatly to the interest of that most important branch of the housewife's work. And even greater than its esthetic pleasure is that afforded by the study of getting the most out of a little, of achieving perfection in flavoring, of the nice adaptation of different combinations. It is in such work as this that the housewife crosses the boundary between manual labor and technical skill, and becomes a professional woman.

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The magnificent salons of the monster S.S. "Lusitania" and of the Great Lakes passenger vessel, "Hamonic," the ball-room of the Brooklyn Academy of Music, the New York Public Library, and the New Theatre are notable examples of the extensive use of Vitralite.

Send for Booklet, "Decorative Interior Finishing,"
It tells all about Pratt & Lambert Varnishes and will guide you in selecting the right color effects in your decorating.

There are other Pratt & Lambert Varnishes you want to know about. Here are two:

"38" Preservative Varnish
is the best for all interior woodwork except floors. Never cracks, blisters nor turns white from water. "38" preserves the natural beauty of the wood and prevents discoloration.

"P & L" Spar Finishing Varnish
is the only varnish to use on front doors, vestibules, boats, or wherever woodwork is exposed to the weather. Is unaffected by extremes of temperature or moisture.

When you come to the question of finishing the floors, "61" Floor Varnish will solve the problem. "61" forms a tough, elastic surface that resists the wear of many feet. It is mar-proof, water-proof, heel-proof. Made especially to withstand better than any other finish the hard usage all floors receive.

Send for booklet, "The Finished Floor"—tells how to care for floors. Ask for Sample Panel finished with "61." Test it with hammer and heel. Mention name of architect and painter when you write.

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Necessary Fat.

Comparatively few people eat fat meat, yet a certain proportion of fat is as necessary to nutrition as protein. A regimen deficient in fat results in unpleasant internal disorders, notably the floating kidney, which is the theme of one of Tolstoy's cleverest bits of realism, in imperfect resistance to cold,and in unsightly emaciation. It seems almost impossible to combat a natural distaste for animal fat and some substitute must be found. A liberal use of butter does something, but hardly meets the demand. There is a limit to the amount of bread and butter one can consume. In the case of children it is a help to cut the bread very thin and to take off all the crust. It is easier to eat and if the slices are doubled a great deal of butter can be absorbed imperceptibly. The objection to butter is that it is a very expensive form of fat. Olive oil is another very valuable fat, but extremely distasteful to a good many people. The taste for it is most easily acquired in childhood, but a very considerable quantity can be taken if it is used in the form of mayonnaise, and highly seasoned. A mayonnaise dressing with a good deal of oil in it can be further modified to suit a delicate palate by an addition of cream, or of unsweetened condensed milk. This latter substance is a valuable and highly concentrated animal fat, but is not always obtainable, nor as well known as it ought to be. It has the advantage of being at once palatable and cheap. It is about double the richness of cream, at half its cost.

The various nut butters are excellent, but not exactly easy of digestion for many people. They are more easily assimilated when combined with cheese or with an equal quantity of cream or mayonnaise. Another source of fat not always appreciated is in some sorts of fish. Salmon is a fat fish, so is mackerel, and there are others. In the case of fish it is an advantage that the fat is not in a mass by itself, but permeates the fibre generally.

It is possible to add a certain amount of fat to many of the common articles of food by using sauces in which by careful cooking a large amount of butter or suet has been incorporated. Liberal additions of butter as a seasoning and yolks of eggs for garnishing also help. But it must always be remembered that a deficiency of fat is a dietetic crime.



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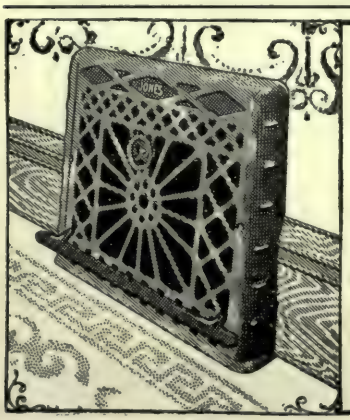
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Utility Wall Board is more lasting than lath or plaster—more impervious to heat and cold—more nearly fireproof and sound proof—more easily and quickly put on—*and it costs 25 per cent less*—

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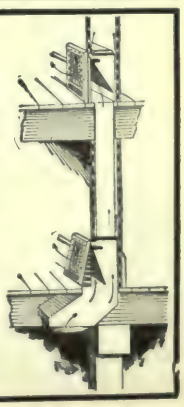
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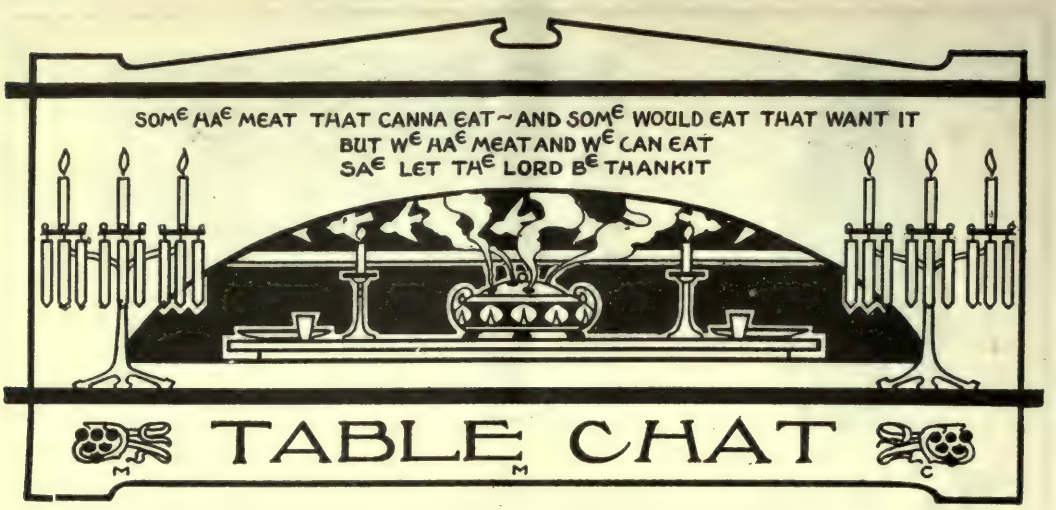
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Casserole and Ramequin Cookery

By BEATRICE D'EMO

(Continued from the September issue)



CHEESE SOUFFLE IN RAMEQUINS

CAULIFLOWER in casserole meets with general approval, although the recipe is known to only a few. The head should be broken into neat sprigs, and these parboiled for ten minutes in salted water. Melt two tablespoonfuls of butter in the casserole, adding the juice of one lemon. Put the cauliflower in this over a moderate flame and turn the sprigs gently with a fork and spoon until all are well moistened with the butter. Pour over a cupful of milk and shake on a little salt and white pepper, then cover and set



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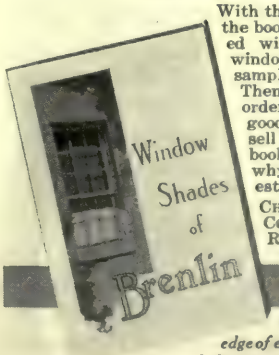
are made entirely without the "filling" that cracks and falls out in ordinary shades leaving streaks and pinholes.

Brenlin Window Shades look better and last longer than ordinary shades because they are made differently.

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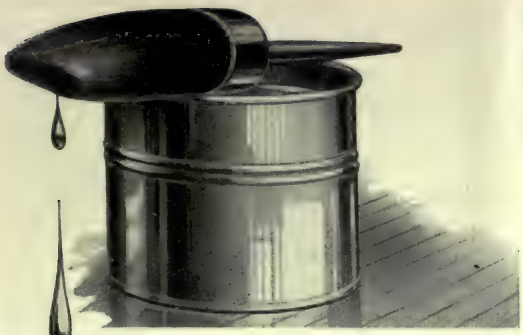
CHICKEN AND EGG FOR INDIVIDUAL BREAKFAST SERVICE IN RAMEQUIN

in a moderate oven for half an hour. At the end of that time pour off any milk that remains unabsorbed, add enough to it to make a cupful, which thicken with a teaspoonful of butter rubbed with an equal quantity of flour, and after it has boiled up once pour over the cauliflower and serve in the casserole.

Sweet potatoes in casserole make an acceptable accompaniment to poultry or lamb. Two large or three medium-sized ones will about fill the three-pint dish. Boil without peeling for fifteen minutes if small, or twenty minutes if large. Peel, cut in lengthwise slices about half an inch in thickness. Have two tablespoonfuls of butter melting in the casserole. Put in a layer of the potatoes, which sprinkle with brown sugar, dot with bits of butter, and repeat until within an inch of the top of the dish, finishing with the sugar and butter. Pour over half a cupful of hot water, cover and cook in a moderate oven for ten minutes, then remove the cover and cook for fifteen minutes longer.

Chicken with mushrooms in casserole is a dish fit for royalty. Select a tender chicken and have it cut as for frying, removing the large bones with a sharp knife. Melt half a cupful of butter in the casserole and in this saute the chicken until it begins to brown, when add a dozen good-sized mushrooms, which have been peeled, pour over a cupful of hot water, cover and cook in the oven for one hour. Remove the chicken and mushrooms to a hot platter, and if the water has nearly dried up add enough milk to make a cupful, or this may be put in the casserole toward the end of the baking, thicken with flour and butter and pour over the chicken. Or pour off the sauce, return the chicken to the casserole, pour the sauce over it and lay the mushrooms on top. Serve with plain boiled rice.

The ramequin—or ramekin, as it is sometimes spelled—is a kind of little brother to the casserole, being made of glazed pottery or china, and is most useful in cooking, or possibly recooking would be the better word, individual portions in an appetizing manner. Before



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it came into general use, semi-liquid dishes, such as creamed oysters, sweetbreads, shirred eggs, etc., were served in a large dish and helped upon small breakfast plates, or the creamed viands were served in pastry or pasteboard cases, which absorbed the moisture and were not very inviting looking after the dainty was partially eaten.

For any kind of firm-fleshed fish in ramequins, flake the fish after it has been boiled and allowed to cool, then put in a saucepan with half a cupful of milk for every cupful of fish, bring to the boil, thicken with butter and flour, then season with salt and cayenne and a few drops of lemon juice. Pour in the ramequins, sprinkle the tops with bread crumbs, moisten with melted butter, and set in the oven until these are tinged with brown. Halibut, salmon, bass, lobster or crabs may be cooked in this fashion. Oysters and mushrooms served ramequin fashion are delicious. For sufficient for three people a dozen medium-sized oysters will be required, a half pint of fresh or canned mushrooms cut in quarters, two tablespoonfuls of butter, a tablespoonful of lemon juice and salt and pepper to taste. Put the butter to melt in a casserole, then saute the oysters in it until the beards begin to curl, then add the mushrooms, the heated and strained liquor from the oysters and the seasoning, and cook for five minutes or until the mushrooms are tender. Put the oysters and mushrooms in the ramequins, thicken the liquor with a very little flour and butter and pour over, then set the ramequins in the oven to get the contents very hot.

Chicken and egg in ramequin makes a nice luncheon or supper dish, and is a pretty way to serve as a breakfast to an invalid. Chop the white meat of cold boiled or roast chicken and moisten with a cream sauce made as for the fish. Put enough of this in ramequins to cover the bottom. Beat the white of an egg very stiff, with a pinch of salt. Fill the ramequins with this, and in the center of each drop the yolk of an egg. Sprinkle chopped chives, parsley or sweet green pepper on top of each and set in a hot oven for three minutes, or until the egg white is slightly tinged with brown. Any meat may be used instead of chicken, ham being especially nice.

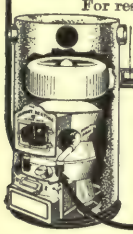
For cheese souffles in ramequins, to serve six people, beat the yolks of two eggs in a bowl, with a pinch of salt and a shake or two of cayenne. In another bowl beat the whites until they are dry and stiff and add to the yolks with two tablespoonfuls of grated cheese and half a cupful of cream. Butter the ramequins and pour in the mixture, sprinkling the top with bread crumbs. Bake for fifteen minutes, or until brown.

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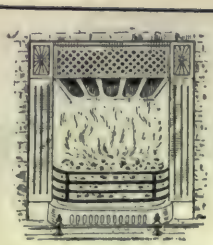
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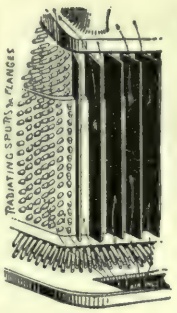
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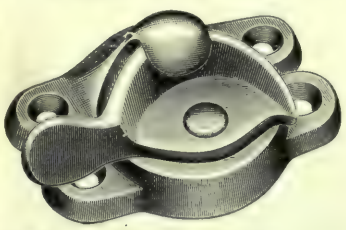
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At the first annual convention of the American Society of Engineering Contractors, says Canadian Engineer, recently held in St. Louis, Mo., a decision was practically arrived at as to the quantity of cement a contractor should find in a barrel. A chief engineer on the Ashokan dam has been specifying four cubic feet as the standard of measurement for a barrel of cement, and a chief engineer on another large public work has been requiring only 3.6 cubic feet. Four-tenths of a cubic foot per barrel makes a vast difference when multiplied by a million barrels.

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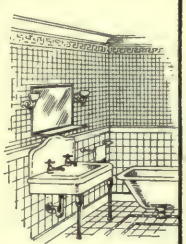
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They result from plastering on wood lath, which absorb moisture and swell when the plaster goes on and afterwards contract, pulling away from the plaster. Your wall is loose—liable to crack at any time. It is also inflammable—a wood-lined flue back of the wall.

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instead of wood lath you get fire-proof and sound-proof walls and ceilings that will outlast the house. Keeps out the cold and the heat—makes the building comfortable and sanitary. SACKETT is composed of alternate layers of Calcined Gypsum and strong fibrous felt, cut into sheets 32x36 inches, about as thick as wood lath. Nailed direct to studding, furring or joists and plastered over. Forms a firm, even surface for the plaster coat—absolutely cannot swell, contract or buckle. If U. S. Gypsum Plaster is used it fuses with SACKETT Plaster Board into a Gypsum monolith—as solid as rock—everlasting.

Do not spoil a good house with poor walls. Build them with SACKETT Plaster Board and U. S. Gypsum Plaster. These materials will give you walls of unequalled quality and will save you a lifetime of repairs. Write for Booklet "K"—yours without obligation.

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Everything in the Plumbing Line

I guarantee to save you 20% to 40% on high class goods. No seconds, only first quality. Write and let me prove to you the money I can save you. Illustrated catalog free.

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Don't Blame the Window Put in the Right Sash Cord FIRST

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PITTI GALLERY, FLORENCE

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bring the world's great masterpieces to your very door, give untold pleasure to yourself and friends and culture to your children, at the same time lending a suggestion of refinement and good taste to the home unattainable in any other way. Write for Booklet (P) telling of these wonderful reproductions of the worlds greatest paintings.

SEND 50 CENTS and we will supply seven beautiful color prints with description of masterpieces available in Painting Proof form.

BROWN - ROBERTSON - COMPANY
23 UNION SQUARE NEW YORK

consists of fine-grained concrete containing 400 kilograms of cement and 120 litres of water per cubic metre of mass, and the inner layer, 1½ inches in thickness, consists of cement mortar prepared with fine river sand. The water is replaced by a solution of common soft soap (potash soap), about 4 kilograms of soap being added to 1 cubic inch of concrete. The building has stood one inundation well, while another building of the same material, without the soap, did not quite keep the water out. Subsequent tests were also favorable. The soap concrete is very cheap compared with other means used to render the concrete impermeable to water. The action of the soap seems to be that the lime of the cement is bound by the fatty acids of the soap.—Building Age.

Cement Concrete Vats and Tanks.

By Albert Moyer, Assoc. Am. Soc. C. E.

Impervious, odorless, tasteless and sanitary vats and tanks for butter-milk, wine, oil, pickles, sauerkraut, etc., can be constructed of reinforced concrete, the reinforcing to be designed by a competent engineer, provided the interior surfaces are treated as follows:

After the forms are removed, grind off with a carborundum stone any projections due to the concrete seeping through the joints between the boards. Keep the surface damp for two weeks from the placing of the concrete. Wash the surface thoroughly and allow to dry. Mix up a solution of 1 part water glass (sodium silicate) 40° Baume, with 4 to 6 parts water, total 5 to 7 parts, according to the density of the concrete surface treated. The denser the surface the weaker should be the solution.

Apply the water glass solution with a brush. After four hours and within 24 hours, wash off the surface with clear water. Again allow the surface to dry. When dry apply another coat of the water glass solution. After 4 hours and within 24 hours, again wash off the surface with clear water and allow to dry. Repeat this process for 3 or 4 coats, which should be sufficient to close up all the pores.

The water glass (sodium silicate) which has penetrated the pores has come in contact with the alkalies in the cement and concrete and formed into an insoluble hard material, causing the surface to become very hard to a depth of ⅛ to ½ inch, according to the density of the concrete. The excess sodium silicate which has remained on the surface not having come in contact with the alkalies is soluble, therefore easily washed off with water. The reason for washing off the surface between each coat and allowing the surface to dry, is to obtain a more thorough penetration of the sodium silicate.

It is obvious that concrete surfaces so treated, if hard, impervious and insoluble, have been made impervious, tasteless, odorless and sanitary.

Booklets for Distribution.

Universal Portland Cement Co.

Free.

Portland Cement Sidewalk Construction. By C. W. Boynton.

Cement Drain Tile. By C. W. Boynton.

Concrete Pavements: Their Cost and Construction, with Specifications. By T. H. Chubb.

Standard Specifications and Uniform Methods of Testing and Analysis for Portland Cement. American Society for Testing Materials.

"Farm Cement News." (Published periodically by this company.)

Association Bulletins.

No. 1—"Concrete Building Blocks." By S. B. Newberry.

No. 10—"The Decoration of Concrete with Colored Clays." By H. C. Mercer.

No. 12—"The Progress and Logical Design of Reinforced Concrete." By Ross F. Tucker.

No. 13.—"Forms of Concrete Construction." By Sanford E. Thompson.

Write to the nearest office of the company; Chicago, Pittsburg or Minneapolis.

Smokeless Boilers.

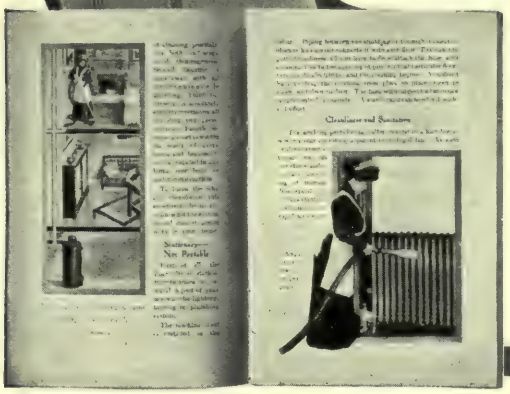
This is a question that will interest people in all walks of life. The handsome catalogue of the Hart & Crouse Co., New York and Chicago, contains many illustrations of buildings in which their smokeless boilers have been installed.

Every home-owner should have this book



because it gives valuable information on that which makes for health in the family, convenience in housekeeping and economy in household expense—*stationary air cleaning*. It also shows why you should have your house piped with 2½-in. pipe to secure the most effective cleaning and gives full details of the working principles which make the

TUEC-170 **STATIONARY Air-Cleaning System**



the most satisfactory system to install. If you read this book you will realize that stationary air cleaning is a kindred convenience to heating, lighting and plumbing, you will see that you can't afford to be without it, and you will want the system that has been proven the most sanitary, most durable and most economical—the TUEC.

Whether your home is already built or just being planned write for this book.

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10 Hurford Street **CANTON, OHIO**
TUEC Companies in all large cities

YOU can get as much heat with one Aldine Fireplace and save 60 per cent of your fuel bill as from four common grates.

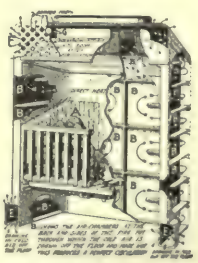


This is because it is really a return draft stove in fireplace form. 85 per cent of the heat is thrown out into the room instead of 85 per cent being wasted as in common grates.

It can be set in any chimney opening at half the cost of a common grate, no special chimney construction is necessary, no pipe to connect, extra large fire pot; made in seven patterns, at prices no higher than any good common grate.

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Makers of all kinds of Fireplaces.



The Painting of the House.

THE colors for the house are of the utmost importance. Many houses are absolutely ruined by the misapplication of color. Often the ordinary house painter knows very little of color effect or harmony in coloring.

The application of color to the domestic dwelling is now considered as almost of as much importance as good construction and pleasing design, and so rapidly have the paint manufacturers risen to the demands for their wares that the color of the house is now one of the most important means of adding to its beauty and its effect. A house painted in good colors, carefully chosen, well applied, and treated in a manner that fits in with its style, its material, and its surroundings, is obviously a more attractive structure than one in which this element has been neglected. The varieties of shades, tones and colors that may be had today provide for every possible contingency and for every taste.

Quality of Paint.

It may be assumed that good paint is an important adjunct to the house. A good paint is one that wears well and can be properly and readily applied to the surface to be covered, being also good and pleasing in color or tone. It is a mistake to conclude, however, that because a color appeals to one, or is pleasing in itself, it is adapted to every condition and to every sort of edifice. Paint must be chosen as carefully and as thoughtfully as the most delicate and expensive part of the house. A color that will answer for one dwelling may be quite impossible for its neighbor. On the other hand, a row of variously colored houses, in which each competes with the others for supremacy, is a trial to the eye and nerves that should not be tolerated.

Care in Selection of Colors.

A quiet house is invariably to be preferred to a riotous one. A peaceful exterior bespeaks a quiet interior. Harmony without is indicative, let us hope, of harmony within. Bright, gay colors are attractive and often fascinating; admirably adapted to many structures, they are not suited to all. On the other hand, too great sobriety is quite as unpleasant. The exterior color should add to the attractiveness of the house, and not detract from it. It should help, not injure. It should assist, and not destroy. Very many houses are hurt by too much color, just as many others are injured by not enough.

Variety and Contrast.

Contrasts and too great variety should be avoided as much as possible. Many of the modern colors are so delightful in themselves that it is not always clear why a number of good things should not be combined and a better result obtained than if only one or two were used. Experience, however, will invariably convince the observer that too many colors on a single house are worse than none at all.

Painting and Environment.

The free use of paint for houses is an indication of an increasing interest in all that pertains to house building. Builders and owners are learning its value, and learning how much can be derived from it. And the color scheme of a house needs to be as carefully considered as the design or the choice of sanitary apparatus. A house is a building intended to be lived in. It is not erected for the benefit of the people without, but for those who inhabit it. Harsh, glaring colors are completely out of place on a house. The color should not be used to announce the dwelling, to draw attention to it, to attract the eye of the passerby. Properly speak-



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The Majestic Furnace & Foundry Co.

88-98 Erie Street, Huntington, Ind.

About Colors

The colors used in interior decoration make or mar the house. They can make the room warm and inviting or cold and repellent. And there are so many things to consider in selecting colors for interiors that the average property-owner is apt to overlook some of them in making the selection. Color, for instance, has the power to alter the proportions of a room. Red contracts, blue and yellow expand. Green, unless very dark, has little effect upon the room, keeping the walls, as decorators say, well in place. Tan, gray, blue and pink have the effect of adding space, while brown, unless very light, has the same quality as green.

To the majority of people, green is restful, red stimulating and blue depressing; but under certain conditions these colors may have quite a different effect. What these conditions are as well as some other vital points about paint and painting will be found in our booklets on these subjects. If you are interested they will be sent you free if you will write to our nearest branch for "Paint Helps No. 0464."

National Lead Company

New York Boston Buffalo Chicago
Cincinnati Cleveland St. Louis San Francisco
(John T. Lewis & Bros. Co., Philadelphia)
(National Lead & Oil Co., Pittsburgh)

ing, it is a help to the building and a part of its decoration. It must harmonize with the design, with the situation and the surroundings. It is perfectly easy to accomplish these results. A good house cannot be built without good taste, and the same taste that makes the house good will prevent any error in the choice of external coloring. An excellent guide to the value of paint and its influence on design is a comparison between two houses of the same design painted in different colors. The result may seem good in both cases, but they will be different in character.

Graining to Represent Rosewood.

Fifty years ago rosewood was much more in evidence than at the present time. It was also more frequently represented and some of the old grainers produced very fine imitations of this beautiful wood. It requires special study and attention, if a fair imitation is to be made. Its grains and figures are in some respects different from those of any other wood, writes William E. Wall in an exchange.

There is a main trunk heart grain, but it seems to often interlock with a multitude of secondary grains interspersed with dark veins of greater or less diameter, but always showing one clean-cut edge.

Ground-color—Orange chrome, red lead, white lead.

Graining color—Vandyke brown, rose pink, drop black.

Tools—Sponge, rubbing-in brush, sash tool, fitches, mottler, overgrainers, camel's hair pencil, black crayon.

This wood can be represented most successfully in water colors. The ground-color should be a rather bright orange made with orange chrome lightened with white lead; adding a little Venetian red will give depth to the color. The last coat should be applied to dry with an egg-shell gloss and when thoroughly hard and dry, is ready for graining.

The graining colors are Vandyke brown, rose pink, ivory or drop black. The base of the color is Vandyke brown and the other colors are blended into the work. After sandpapering the ground-color and dusting off clean, the work should be sponged over with a little of the thin rubbing-in color. If the color creeps or crawls, use a little bolted whiting on the sponge.

The thinners for the graining color should be one part stale beer or vinegar to two parts of clean water. When a panel is rubbed in with the graining color, the sponge can be used to remove portions of the color. These places will be the lightest in color on the finished work. The rose pink may be used in a sash tool and proportions of that color blended into the Vandyke brown. Later, the edges of these proportions may be sharpened with a small fitch tool charged with some of the thin black. The blender is used to sharpen the edges of the black veins. After the general plan of light and shade is determined, the work is allowed to dry and the grains are finished by using the overgrainer. This is a little flat brush the bristles of which are charged with a thin color which is made by mixing Vandyke brown and a little black.

The bristles of the overgrainer are separated with a bone comb and the grains put in with a quick touch, blending immediately with the badger blender.

The strong heart grains may be represented by using the small bristle liner charged with thin color, blending the work before it dries; a crayon pencil may also be used for this purpose.

When this overgraining is dry, it can again be overgrained if necessary, and the darker veins also be sharpened and made more distinct when dry. The work may be given a thin coat of oil color composed of rose pink and Vandyke brown thinned almost wholly with turpentine, adding a small quantitv of good liquid dryer. When thoroughly dry the work should be varnished.

Rubber in Paint.

Averill's "chemical" paint, which paint I believe was the first ready mixed paint in this country, is said to have contained some rubber in its makeup. Rubber has been used in paint a number of years, though we are not to accept all so-called rubber paints as containing that substance. But it is not simply a matter of dissolving some rubber and mixing it with paint.

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"There is no art to find the mind's construction in the face." —*Macbeth.*

—BUT—

"The dwelling a man builds, reveals his personality, and through its halls and porticos runs the story of his life."

Now if the problem be given proper consideration, it means *time* and *time* is money. We would be speedily overwhelmed with requests if this were a *free* offer, consequently it is not free. No signed contract is asked for. We propose to make our work so pleasing and satisfactory as to demonstrate beyond a question that the *best* is certainly the *cheapest* for you. The fact that *houses* built from our designs *sell* advantageously when built proves they are *practical* and *desirable*. *This is an important matter should you wish to dispose of your property.*

REMEMBER:—It is not what *you pay for plans* that is the *real consideration*, but it is *what you get.* Why? Because upon your *plans* and especially the *details* of *construction* depends utterly the *proper* or *improper* expenditure of *all your building funds.* Quite important, is it not?

THE KEITH CO., Architects

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You may think you'll save money and get *about* as good results by using a low-priced or a hand-mixed paint this spring, but you'll find it does not work out. For a few months, it *may* compare favorably in brilliance and appearance with the best. But under the stress of weather and climate you'll soon note the difference.

Suppose you select for your painting the highest grade paint on the market—*a paint with reputation behind it*—

Lowe Brothers
High Standard
Liquid Paint

It will cost a few—*only* a few—cents more per gallon, but you get longer wear, greater covering capacity—a paint that leaves the surface in prime condition to receive a new coat—saving the expense of burning and scraping.

Your painting is an investment of a special character and you should consult a specialist regarding it. The Lowe Brothers dealer in your locality is thoroughly posted on paint and the painter who recommends "High Standard" is generally the best man in his line. See him before you paint.

Inspect the season's color combinations in "High Standard" and ask about "Mellotone" a flat oil paint for interior walls—Linduro enamel, for wood and metal surfaces—"Little Blue Flag" Varnishes for every purpose.

Get a copy of "Harmony in Color" showing latest favored combinations. Also "Common Sense About Interiors." Both Free, or send 25c and get "Good Homes by Good Architects."

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Warm Air Furnace Work

Extracts from Address by George W. Munson of the Federal Furnace League

Importance of Installation.

THE importance of proper furnace installation is manifold, first to the public, from the fact that it not only affects their comfort and convenience, but may jeopardize their health, yes even their lives. How often have we found the furnace placed over a pit half filled with stagnant water, a breeder of disease, over which every particle of air must pass to reach the rooms above; carrying with it the disease breeding germs against which the whole medical profession is waging war. Again we find the pit drained into a sewer, with no other means of keeping out the foul gases than the water seal in the trap, which in a long dry spell is soon broken by evaporation, thus allowing these gases free access to the rooms above. Can one imagine any thing more detrimental to the health of the occupants? Almost every city in the land has laws regulating the installation of plumbing, but has neglected entirely the heater.

The Value of Fresh Air.

We would recommend that wherever at all possible a fresh air room be supplied, and the ducts leading from this room to the furnace be made in such a manner that they can be inspected and cleaned and thus furnish air to the furnace and the rooms above in its purity.

To one engaging in the heating business, proper installation should be the keystone.

Purchaser Knows Little About Furnace.

The purchaser knows little about furnace installation, and may want it installed in a way that will not give satisfaction. Here is where the dealer must be careful and explain to his customer why the heater cannot give perfect satisfaction if improperly installed, and will be a source of continuous trouble to all concerned.

The dealer should take time to examine the building, its environments, with reference to its exposure, etc., the basement or cellar, where furnace must be placed, the flue to which it must be attached, size, elevation of pipes, location of same, in fact, examine the entire situation, as it takes the whole combination to make a complete heating plant. It is up to him to fulfil every promise made, and install the plant so that with proper management it will do the work for which it was designed.

We make only a part of a heating plant in our foundries and factories, the owner who supplies the flue to which the furnace must be attached, the architect, who furnishes the space in which to place the pipes (two very important parts), and the dealer, who supplies the pipes, fittings, registers, etc., and erects the apparatus, a still more important part, and yet in case of failure, the furnace, and the maker who designed it, who has never even seen the building in which it is placed, is very often held responsible, and is supposed to shoulder the blame and stand the loss.

It is plainly evident that under these, the existing conditions, the manufacturer, the public, and the dealer are very much interested in the proper installa-



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(Continued)

Jack was so well pleased with the satisfactory results from "overcoating" his two old houses that he decided to build a new stucco house for Jack, Jr.

The result is shown in the illustration.

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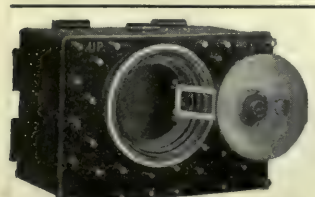
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JOHN HENRY NEWSON, Architect
1243 Williamson Bldg., Cleveland, O.

tion of every warm air heating plant erected.

It does not seem amiss at this time to suggest to the Federal Furnace League to take another step in advance, by supplying to furnace dealers, in addition to complete rules and directions embodying the principles of correct furnace practice, a complete set of examination questions, with drawings, etc., and grant certificates or diplomas, setting forth that the holders are practical furnace men.

Good Plumbing a Paying Investment.

If the average property owner would only take time to consider the question, he cannot do other than admit that the plumbing outfit of the ordinary dwelling or flat is, after all, the most difficult to maintain in proper sanitary condition and repair. This will become all the more apparent if the person interested will but examine his pile of repair bills for cleaning out traps, installing new supply pipes, closets, basins and innumerable small parts so important to the successful operation of the plant.

In many instances, says Architect and Engineer, the fault may be traced to defective installation and the employment of light materials, which are unfit to properly withstand the wear and tear caused by the elements. It has often been pointed out that the method of conveying water through a building is a simple problem, requiring no especial ability on the part of the mechanic, while, on the other hand, the disposal of excrement without unnecessary odor or the violation of established plumbing regulations is an entirely different matter.

Providing the rough work has been installed in a proper manner, and heavy material is used, little trouble is likely to follow; but often an error is committed in finishing with seconds, or an inferior grade of materials, such as thin traps, pitted closets and basins or other weak or damaged parts. Under such circumstances there is but one sensible thing to do, and that is to rip them out and have the job done right and by an experienced plumber.



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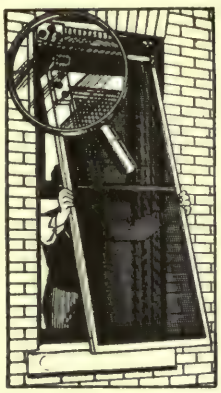
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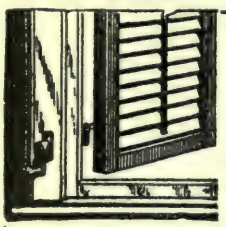
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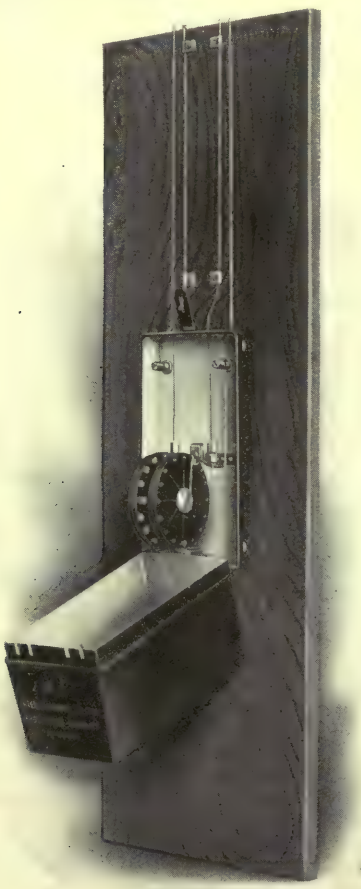
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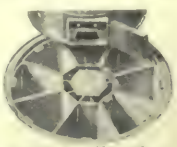
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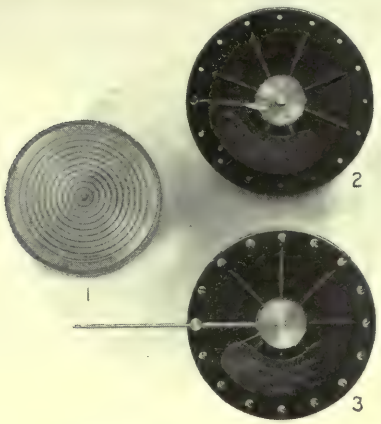
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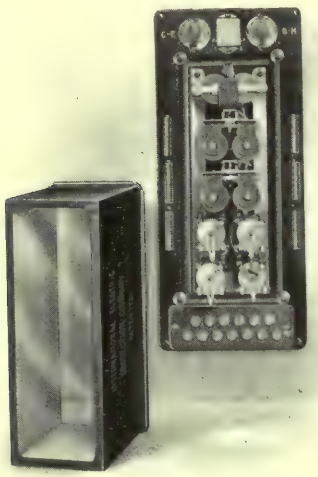
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A few years ago an architect of culture and standing would not think of selecting a mantel from a catalogue.

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Among the catalogues that are of interest is that of C. F. Thauwald & Co., Cincinnati, O.

New Ideas in Warm Air Heating.

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Clay Products Exposition.

An exposition in the interests of clay products of every class is to be held March 7th to 12th, 1912, at the Coliseum, Chicago. The illustrated prospectus is at hand, setting the whole matter clearly before the reader in an attractive manner.

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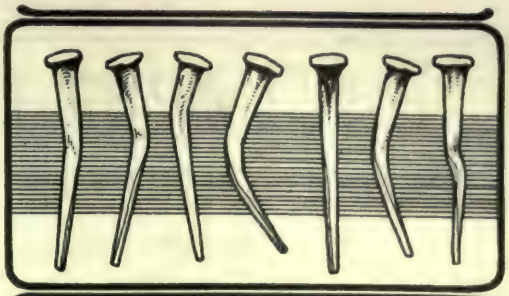
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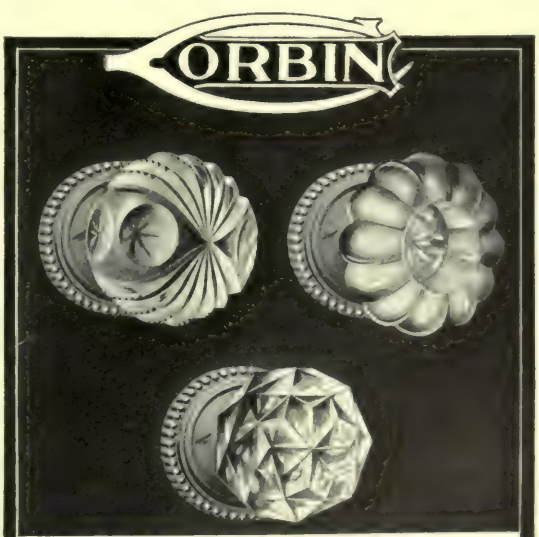
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To the man well known of recognized ability, this hardly applies, but to the vast majority who are simply cogs in the great machine, it comes very near. How this man with a wife and one boy, worked out the problem and the aid and comfort he received from his loved ones, is a story that will be of more than usual interest and possibly profitable.

The Winning of Barbara Worth.

By Harold Bell Wright.

The author of The Calling of Dan Matthews needs no introduction to the public and the new book is quite up to his usual high standard. It deals with large men and large projects showing the methods of present day financiers, their attitude toward each other and toward the public. Hard-headed men are they, yet a tender woman's influence changes the whole course of events as they have been mapped out, bringing good to the greatest number where only greed and gain were contemplated.

Barbara Worth is a child of the desert, adopted by a Western financier, a man harsh in appearance yet heart-hungry for love and confidence.

The little child influences him and as she grows up the call of the desert adjacent to the town is strong upon her. Her great desire is to see it reclaimed and when Eastern capitalists become interested she feels that her dream is to be realized. She is amazed when her father refuses to enter the project and he is unable to tell her that it is because he cannot countenance the methods of the proposed company. He feels that she is disappointed and saddened but patiently waits the time when he can by careful plans block the great game of the company and shape events as she would have them go. A battle royal takes place and Barbara's cause is upheld by a devoted little band and finally by the company's engineer. It is a love story all through, the love of strong men for a little child, the love of man to woman and the love of man to man. It is a good book with a good influence.

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By L. M. Montgomery.

This is a story of the everyday life of children, their joys, sorrows, flights of imagination, their likes and dislikes.

In reading this book much of our own childhood comes back to one. The scene is laid in Prince Edward Island and much of the story takes place in the old orchard where each tree represents some one of the family or a dear friend.

The Story Girl has a wonderful talent for story telling which later makes her famous. Each child in the story has certain traits of character, which produce individuality but they are all very clannish as to their mutual interests. Grown-ups are something apart and hard to understand. It is this very thing that makes the book of special value to adults because in it they see themselves as children see them. It is an ideal child's book.

L. C. Page & Company, Publishers, Boston. Price $1.50.

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IDEAL HOMES MAGAZINE

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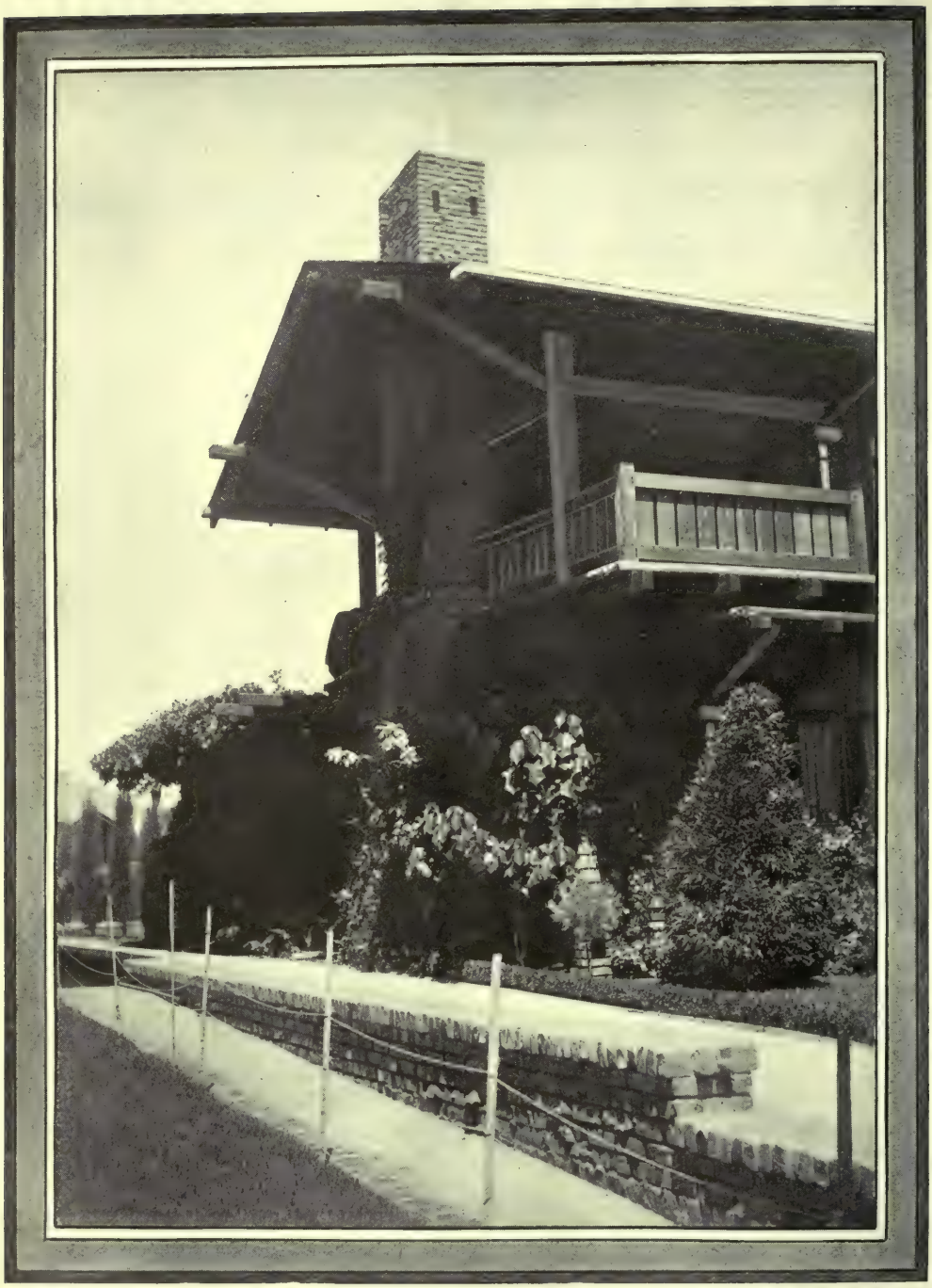
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No. 1. AN ARTISTICALLY ARRANGED CHIMNEY BUILT OF BRICKS. AN ODDLY DESIGNED BALCONY IS ALSO SHOWN IN THE ILLUSTRATION

KEITH'S MAGAZINE

VOL. XXVI NOVEMBER, 1911 No. 5



No. 8. AN ODDLY DESIGNED CHIMNEY BUILT OF BRICK WITH THE FRONT DOORWAY PASSING THROUGH ITS BASE

Some Artistic Chimneys

By CHARLES ALMA BYERS

PROBABLY no other single architectural feature of a house possesses the ability of so effectively adding to or detracting from the external appearance of that house as does the chimney. This is one of the salient facts of better architecture that the modern home builder is beginning to realize, with the result that already the beauty of many a home has been greatly enhanced by an artistic chimney. The well designed and well built chimney is no longer only an architectural creation for carrying off smoke. Instead, while its first requisite should be the possession of that quality, it is being made one of the house's distinctly decorative features.

With this movement in progress, the plain brick chimney of a few years ago, whose numerous stereotyped reproductions seemed to be invariably struggling to make every landscape monotonous, is probably doomed to suffer gradual disappearance. The essential utilitarian quality of that chimney was no doubt as much in evidence as could be desired, and as is that of the more modern picturesque construction, but the architect of today is not satisfied with producing features that possess only the essential



No. 4. AN ARTISTIC COBBLESTONE CHIMNEY FOR A BUNGALOW, SHOWING STONES OF UNIFORM SIZE

quality. He is going farther, and from his efforts to supplant the chimney of "prosaic ugliness" some very attractive creations have been produced.

As is always to be expected in new movements, however, the modern architect has, in a few instances, gone too far. He should bear in mind that picturesqueness carried to a certain point becomes bizarre. There are certain rules which, even if they cannot be adequately set forth in writing, must be observed in the building of a decorative chimney. The creation must, at least, be in harmony with the general plan of the house, and be somewhat in keeping with the surroundings. It should not be of rugged design unless there is otherwise a suggestion of ruggedness about the house or grounds. Then, too, attention should be given toward fitting it into the general color scheme, and toward having its material correspond, to a certain degree, with the other materials used in the house's construction. To better emphasize some of these facts, attention is invited, separately, to the accompanying illustrations, which show chimneys built of brick, cement, cut stone, cobblestones and boulders.

The illustration indicated as No. 1 shows an artistically arranged chimney built of brick. The chimney is placed at one end of a two-story house, and is of rather massive design. There is a very spacious balcony on the second floor, and the chimney pierces the center of its liberally extended roof. The woodwork of the house is rough and plainly sawed, and is painted a dark brown, with which the dark red brick of the chimney harmonizes effectively. Gracefully clinging vines and other floral decorations help to give the chimney an artistic appearance.

The photograph shown as No. 2 illus-



No. 5 A CHIMNEY OF SIMPLE, MASSIVE DESIGN FOR A BUNGALOW. THE CHIMNEY IS LOCATED ON THE FRONT OF THE HOUSE

trates a chimney also built of brick. It is located on the front of the house, in a sort of corner formed by a roof projection that shelters the "den" and front veranda. On the second floor, the house being, in the main, two stories high, it is partly surrounded by an open balcony, one-half pergolaed. The chimney is of plain design, and were it not for its being ivy-covered it might seem a too conspicuous feature. The woodwork of the house is painted a dull green, with lighter green trimming.

The illustration designated as No. 3 shows a very artistic chimney built of cobblestones. The porch parapet and pillars are also of cobblestones while the shingles siding and other woodwork of the house, which is two stories in height, is painted a rich brown. The roof is painted white, to match the color of the cobblestones. This combination of colors is pleasingly attractive, and affords an excellent background for the hanging baskets of ferns, the window boxes of ivy geraniums and the rows of scarlet geraniums, bordered by "dusty millers," that enclose the walks and the porch parapets. The chimney is broad and thick, suggesting massiveness, and extends to a considerable height above the point of exit through the roof. It is well formed, and the cobblestones used are excellent specimens.

Nos. 4 and 5 show chimneys of similar design, both built of cobblestones and both located on the front of one-story houses. The chimneys differ in contour and workmanship, the former being constructed of small stones, evenly laid, while the latter employs the use of stones that can almost be termed small boulders, laid more haphazard. The woodwork of the former house is stained a dark



No. 3. AN ATTRACTITE CHIMNEY OF COBBLESTONES HARMONIZING TASTEFULLY WITH THE BALANCE OF THE HOUSE



No. 9. CHIMNEYS BUILT OF BRICK THAT PRODUCE A REFINED, ARTISTIC EFFECT, USED WITH THIS STYLE OF ARCHITECTURE



No. 2. A PLAIN, SLENDER CHIMNEY BUILT OF BRICK, WHOSE BEAUTY IS ENHANCED BY CLINGING VINES



No. 6. Showing two picturesque chimneys of art stone.



No. 7. A unique chimney built of brick and cobblestones—a difficult combination well handled.

brown, with the roof painted white, while the color scheme of the latter consists of green with white trimming.

The illustration shown as No. 6 presents a well designed and proportioned chimney built of split sandstone. It is located on the side of a two-story house, and with its covering of ivy it adds very materially to the beauty of the home. The color scheme of the woodwork of the house consists of dull greens.

Photograph No. 7 illustrates a rather unique chimney constructed of brick and cobblestones. This is a combination of materials that is extremely difficult to satisfactorily handle, and most often the creations wrought from it are anything but artistic. In this instance, however, the materials have been well blended, and the intermingling of cobblestones with the brick has produced some unusually attractive masonry work. The chimney is located on the front of a low-roofed bungalow, with its pyramid base forming a sort of parapet-wall for one side of the steps that lead onto the front porch. There is a miniature window on each side of the chimney, which relieves the shingled siding of any possible monotony. The shingles are simply oiled, leaving them possessing nearly their natural color, while the remainder of the woodwork is painted brown, with the trimming done in white.

The photograph designated as No. 8 also presents a chimney of unique design. It is located on the front of the house, and the front door leads directly through its massive base. The chimney, as well as the porch parapet, is constructed of brick. The siding of the house is of broad redwood shingles, stained a reddish brown.

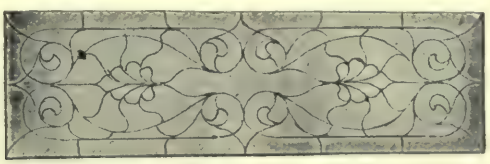
No. 9 shows an appropriate brick chimney for the English style of architecture here employed, and No. 10 illustrates the type of chimney commonly used in the well-designed Mission house, emphasiz-



No. 10. REPRESENTING A HOUSE OF MISSION ARCHITECTURE WITH CHIMNEY TO CORRESPOND

ing the fact that harmony should be the aim of the chimney architect.

In fact, from the accompanying photographs and the foregoing descriptions, it will be observed that the artistic and well-built decorative chimney is one that, in the first place, harmonizes with the general plan of the house, and that, in the second place, becomes a distinct feature in that general plan. The chimney may be built of almost any material, so long as it is in keeping with the materials used in the remainder of the construction. The decorative chimney should not be too conspicuous, nor should it be built, as it was a few years ago, to appear as only a necessary adjunct, of whose existence the builder felt half ashamed. It is a feature that should be made artistically prominent, and when such is successfully accomplished the builder will have created a structural feature connecting the house with its surroundings in such a manner as to appear, as it should, that the one was made for the other.



Late Fall With Flowers and Plants

By TARKINGTON BAKER

(Author of Yard and Garden)

MUCH of the success of next year's garden depends upon the thoroughness with which November's work is done. It is dreary work, too, for the lifelessness of the winter is ahead and the gardener must proceed without the inspiration that the spring brings with its new awakening, its green shoots and bursting buds. But it must neither be neglected nor slighted.

First of all, lift, cure and store the summer-blooming bulbs and tubers. Lose no time in lifting the dahlias before heavy frost damages them beyond recovery. Cut the stem to within three or four inches of the roots, making a clean, straight cut, and lay the roots on boards to dry out for a week. When thoroughly dry, shake off the clinging soil and store the roots in a dry, frostproof cellar, where the temperature throughout the winter is approximately forty degrees.

Treat cannas in the same way. They require less curing, however, and can be stored as soon as dry. A slightly higher temperature than that best for dahlias will do them no harm. Tuberous begonias should be lifted in the same way, but the foliage should not be cut from the tubers. Allow them to dry thoroughly and the stems, it will be found, will part readily from the tubers, when the bulbs may be stored with the dahlias. These begonias should be lifted immediately after the first light frost.

Lift gladioli with the stems attached and, when thoroughly dry, remove the bulbs from the stems and store with the begonias. Montbretias, if heavily mulched, will survive the winter in the ground. If, however, fear of the success of this is entertained, treat these bulbs as advised for the gladioli.

Tuberoses should have similar treatment.

From time to time, during the winter, examine the bulbs and roots stored in the cellar and make sure that they are enjoying the best conditions possible—which means an atmosphere that is neither too dry nor too damp and a temperature that is neither too high nor too low. If the bulbs seem soft and damp to the touch, dust them with a light coating of lime or flowers of sulphur. If they appear to be drying too rapidly, cover them with clean, dry sand. If rot develops, especially on the dahlia or canna roots, remove the affected portions and apply the sulphur.

In the beds and borders of hardy perennials, see that dead tops are cut away and burned. It is never safe to use this material as a mulch; disease and insect eggs lurk in the leaves. With this accomplished, make the surface of the soil as clean as possible, digging in old manure or fertilizer, leaving the soil in a loose, friable condition. This insures the best conditions possible for the plants when they awaken early in the spring and their root growth is begun. Next apply a top dressing or mulch of leaves and strawy manure. Avoid putting this on, however, until the ground is slightly frozen. Too often the mistake is made of applying the winter mulch too early in the season and the consequences are disastrous. Five or six inches of the mulching material is not too much. If heavy winds threaten, bind

the blanket down to prevent its blowing away. If it is possible to obtain them, use the leaves of hard-wooded trees, as these do not pack so closely as those of the soft-wooded trees.

Afford some protection to vines in exposed situations by screening them from the biting winds of winter with a curtain of burlap or similar material. This can be adjusted by means of tacks, string or wire. Remember that where vines are exposed to the drip from overhanging eaves, much damage is likely to result. Do whatever is possible to protect the climbers from this source of injury. If the vines are not reliably hardy, lay them down and cover them with leaves or litter. In the case of the roses, this is always the best method to pursue. Climbing and rambler roses, even when tender, will come through the winter when thus treated without any appreciable injury. If unprotected, however, even the sturdiest of them will suffer to some degree. Curtains of burlap may be used effectively where it is not practical to lay down the long shoots.

There need be no haste in supplying winter mulch to the beds of bulbs. Indeed, it is far better to wait until the ground has been frozen to a depth of an inch. This is true because it is not the purpose of the mulch when applied to bulb beds to *prevent* freezing, but to protect the bulbs from the injurious and oftentimes fatal effects of alternate freezing and thawing. The gardener can figure this out for himself if he stops to consider that freezing and thawing contracts and expands the top layer of soil, heaving and tearing each time the cycle is completed. Tulips, narcissi, hyacinths and the bulbs of lilies make a fall root growth, and this rising and subsidence of the soil frequently tears the bulb completely from its roots—which explains some "mysterious" failures that are oftentimes reported.

It is best to apply the mulch *after* the ground is frozen, because the blanket tends to confine the cold, to save the frost, as it were, and hold it prisoner in the ground until the new spring has advanced far enough to get over its usual fickleness. Bulbs so treated do not send their tender, green shoots through the surface at the first alluring smile from March, and, consequently, suffer no injury when a late April frost spreads its blight on growing things and goads the gardener to despair.

Rather than have no bulbs blooming indoors this winter, start tulips, daffodils, hyacinths and Chinese sacred lilies as late as December 1. The best results will not be obtained, to be sure, but if the indoor gardener has been neglectful, nothing more can be expected. Try to obtain bulbs for this sort of late planting that have been in cold storage; with these excellent results are obtainable. If the bulbs are soft and shriveled, waste no time with them.

Roman hyacinths can be had in bloom for Christmas day if they are potted by November 15. These and Chinese sacred lilies, grown in water in bowls, are appropriate for holiday gifts. Indeed, there is nothing prettier, with their freshness and fragrance, and certainly nothing could be cheaper. The bowls may be as inexpensive as one may desire and, as a rule, the plainer they are the more appropriate they appear.

Other bulbs that can be potted this month and forced into bloom during winter are gladioli, amaryllis, bleeding heart, agapanthus and astilbe.

The best gladiolus to force is Gladiolus Colvillei. The amateur will not find it difficult to grow. It can be had in flower by Easter if planted as late as December 1. It demands a night temperature of 45 or 50 degrees and should be planted in boxes or pots six inches deep. Set the bulbs three inches apart each way.

Some Decorative and Inexpensive Curtain Schemes

By MABEL TUKE PRIESTMAN

(Continued from the October issue)

ONE of our illustrations shows a scrim curtain with a stencil decoration of grape motive done in browny purple and dark green. They are used in a dining-room with green walls and black furniture, and as there were ten pair of curtains in the room, they gave a charming relief to the green background. When stenciling is done with oil paint, and well done, it is decorative and economical for window curtains, and does away with the necessity of any trimming, but a good quality of scrim should be used, as it is not worth while to put good workmanship on flimsy materials. There are several new, clear fabrics in the shops that are well suited for stenciling upon.



Ivory scrim curtains with a stencil border showing purple and green used in a dining-room.

An old favorite, and one of which we never tire, is Madras. The cream ground and colored flowers give a soft and pretty appearance to the room when they are used as sash curtains. Some people have a great objection to lined and interlined curtains, and for those who have this prejudice, the made Madras are appropriate for downstairs rooms. Illustration No. 7 shows a finely woven green Madras with flowered border and center.

We are too apt to let our energies run entirely to the curtaining of the first floor, but there is no reason why the bed-room curtains should not be as pretty and in as good taste as those downstairs. Certainly cost need not deter anyone from getting decorative curtains, for all sorts of pretty, inexpensive fabrics can be utilized for getting correct effects with inexpensive materials. The curtains that I have recommended for downstairs rooms can be used in bed-rooms by those who have not to weigh cost, but linen taffeta and imported cretonne are not by any means cheap, although nothing is so much used in well furnished houses as these two materials. Plain white Swiss is the cheapest of the many attractive sash curtain materials, and these can be made up with frills of

the same material or with the little edging now seen on almost every curtain. Illustration No. 8 shows a cheap Swiss, bought by the yard and trimmed with the Vandyke edging. Two and one-half yards of cretonne have been cut up, and one stripe on each curtain appliqued to the Swiss. The effect is charming, and yet the cost is trifling.

Another of our illustrations, No. 9, shows the same idea in green cotton cloth. The Vandyke edge with which the curtain is bound saves hemming, and the applique from the cretonne is chosen to match the wall paper, and makes an original and charming bed-room curtain.

Illustration No. 10 shows a more ambitious bed-room curtain and yet one that is not outside the possibilities of home talent. A design is marked out on the material and painted with tapestry dyes. With the addition of needlework, only slightly covering the design, a beautiful and decorative curtain has been made. Of course it must be lined so as to hide the stitches and the patchy effect of the painting showing through. This idea could be carried out on any colored cretonne or denim. It would seem a pity to do it on ivory or white, as it would never look the same after being laundered, although it could be cleaned without being spoiled.

A girl who loved something original gave a trellis effect to her windows in an attic bed-room. The green silkoline curtains, which drew together in place of shades, have behind them a lattice of green braid. Sash curtains are hung against the glass, so that this queer conceit is not visible from outside, but tucked away in an attic, daring originality is sometimes allowable.

When curtaining a house, restraint is necessary, so as not to overdo it. A curtainless room has a dreary, unfinished appearance, but one that has the right amount of heavy drapery, with dainty sash curtains that do not obscure the light, has a charm felt by all who enter the room. In the city home it is essential that the curtain is figured enough to act as a screen during daylight hours, but in the country where wide vistas of green fields and woods are possible, nothing is in better taste than white Swiss sash curtains, lightly held back so that the view can be obtained through the glass itself rather than through the curtains. An inexpensive and yet decorative material for use at all the windows is a plain bobbinet finished with an edge or insertion, or a scrim trimmed in the same manner. Ivory or white is best suited to country homes, while ecru colored net for the city home or for houses with dark woodwork.



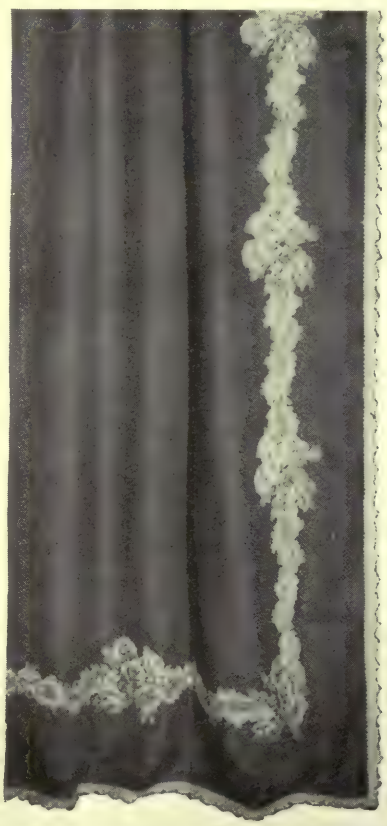
Madras is appropriate for any room and is always in good taste.

There are several new Filet nets this season and also materials technically known as Fishnets, but which have little relation to the Fishnet of five or ten years ago. They are particularly well adapted to the living-room or sitting-room, while the Filet and lace curtains are most appropriate for the formal rooms of the home. Arabian lace curtains are suited to the furnishing of handsome homes especially in the city. The patterns are made with braid, and the designs are graceful and appropriate. Cluny lace curtains are also economical and durable. The above mentioned curtains can be obtained at almost any price, according to the quality of the net and the amount of trimming on the curtains, but their range in price is so varied that almost anyone can become the owner of beautiful and suitable curtains.

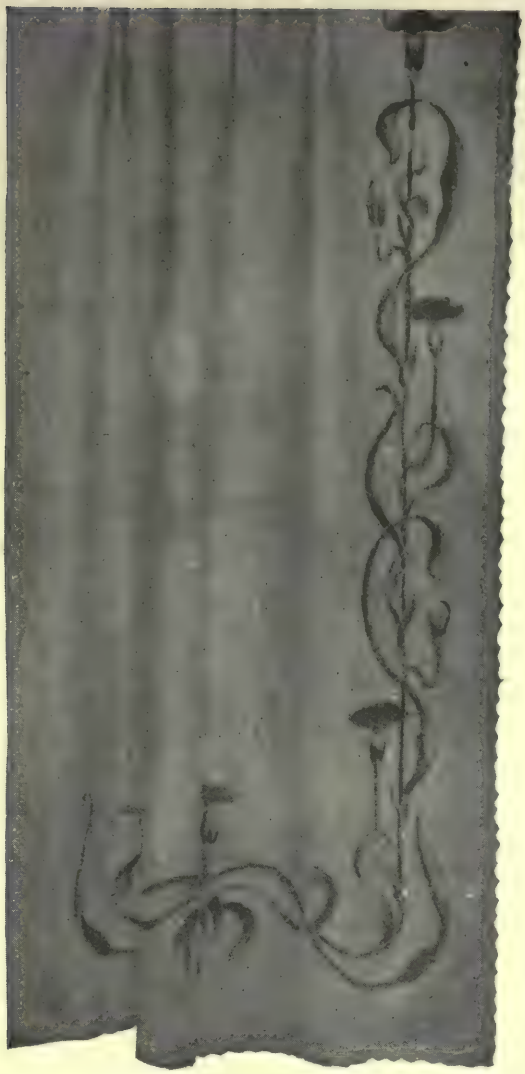
Great care must be taken in the hanging of curtains to see that they just escape the floor, and inner curtains must not on any account be held back with cords, although this is still allowable with sash curtains. Traverse rings and traverse cords enable portieres to be quickly drawn back, preventing them losing their shape if they are pulled to and fro by pulling the curtain itself. As heavy curtains of all kinds are a large item in furnishing, it is most important that such little details as tend to the care of the draperies are given a good deal of thought, and a little money wisely spent at the beginning in protecting them from wear will often be found to



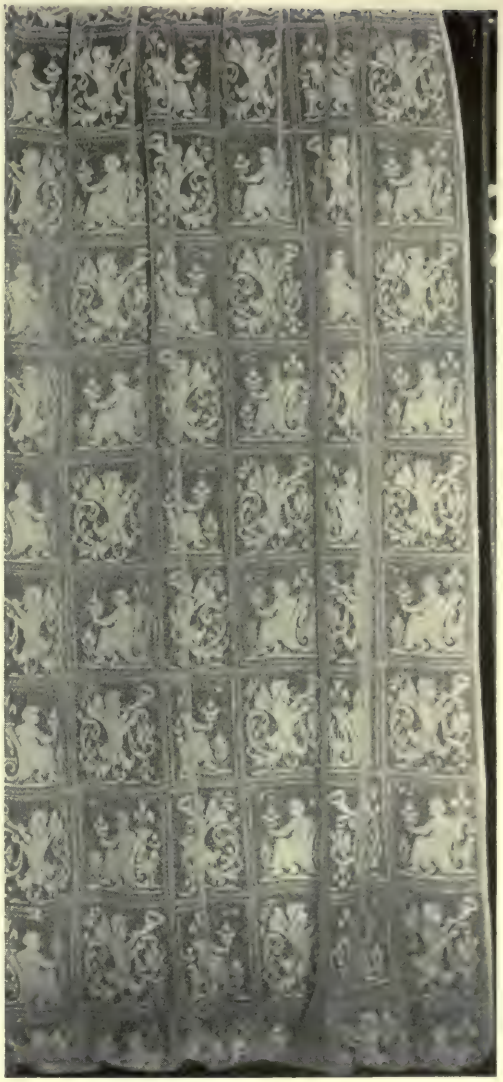
A Swiss curtain may be ornamented by an applique cut from a striped material.



A strip cut from cretonne makes an inexpensive border trimming for a colored cotton bed-room curtain.



A design can be painted on a cotton material and a few touches of needlework added.



Filet Net—It is especially adapted for city homes as it acts as a screen and yet does not absorb light.

have been a real economy in the long run.

Pretty over-curtains, for service through the cold weather at bed-room windows, are made from cretonne lined with cheese-cloth in some tone which appears in the cretonne pattern. Used over ruffled Swiss or muslin curtain, these give the room a very dressy appearance. For small windows where two sets of curtains would look heavy, curtains made of dainty sprigged dimity, such as was used for summer gowns and costing from eight to fifteen cents a yard, make very desirable sunlight filters.

A useful closet may be made from two boards and muslin by nailing the two boards together on the edge and fastening clothes hooks on the one nailed to the wall. The curtains are attached to the edge of the flat board by brass headed tacks, making a neat closet.

Construction Details of the Home

The Stairway—Its Location, Design and Constructive Details

By H. EDWARD WALKER

THE location of the stair depends somewhat upon the requirements of the family. If the house is sufficiently large to warrant a back stair the principal stair may be located without reference to the rear portion of the house.

Some families are so situated that the stair may ascend from the living room without thought of inconvenience. In the average house it will be best to reach the stair soon after entering the house, without passing through any room to get to it. It will be an advantage if the kitchen is located adjacent that a combination stair may be arranged in such a manner that one may pass unobserved to the main stair. If the stair to basement can be arranged below with a door at grade, an almost ideal arrangement is obtained. If possible the stair should be far enough back when it lands on the second floor to allow the full frontage across the house for floor space. It is at the front that rooms and light are of most value.

Space Occupied by the Stair.

Begin with the height of the story, usually 9 feet. Add to this the actual thickness of the lining and finished floor, the ceiling plaster and the height of the usual 10-inch joists of the second floor, 12 inches, a total of 10 feet from the top of first floor to the top of second floor or 120 inches. Divide this by 7½ inches, which is an ordinary and comfortable height to rise at each step and the result is just 16 risers in a total rise of 10 feet.

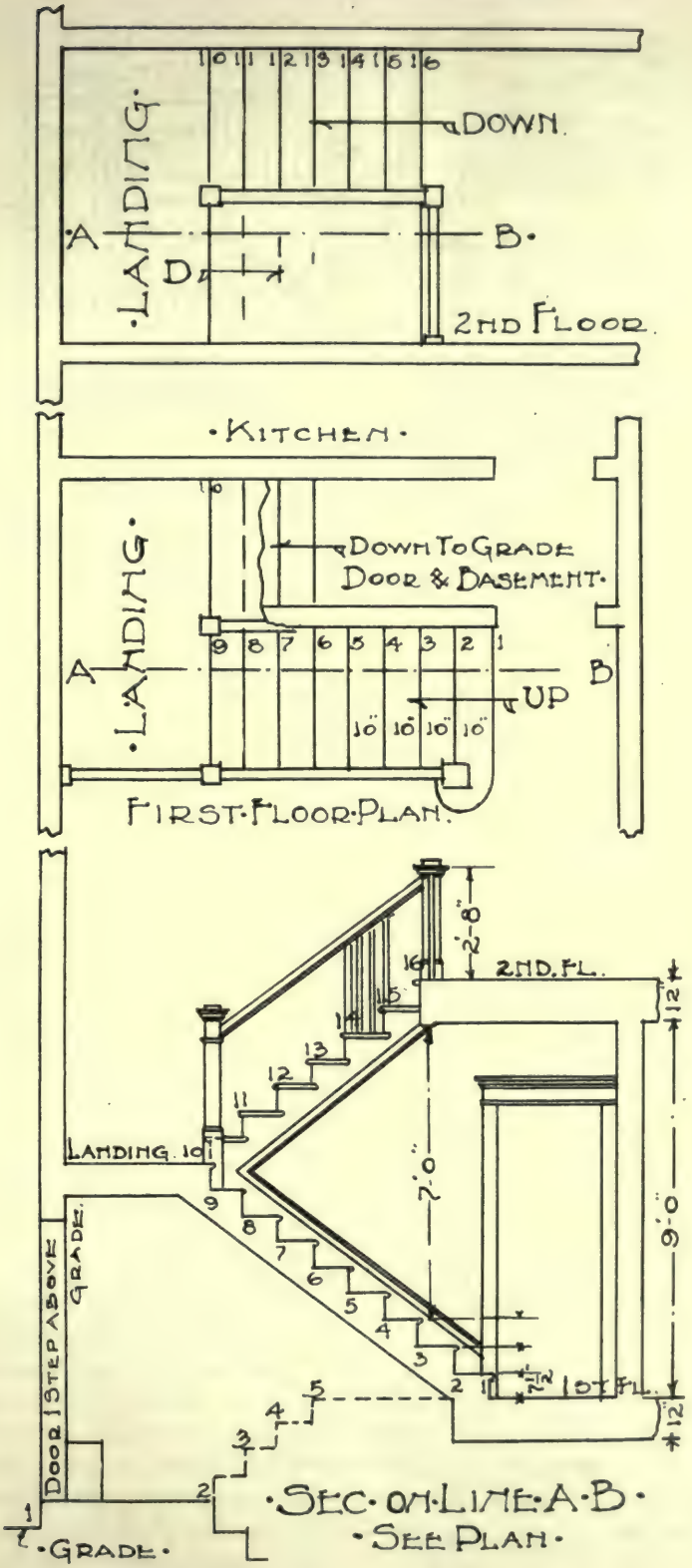
Take the sum of 2 risers, equal to 15 inches, and subtract it from 25 inches, which is 10 inches. This will be a desirable width for the tread without the nosing. The sum of the tread and riser is 17½ inches and by subtracting any assumed riser of reasonable height from this figure will give the proper relative size of the tread. The lower the rise is, the broader will be the step to obtain the most comfortable proportion for comfort.

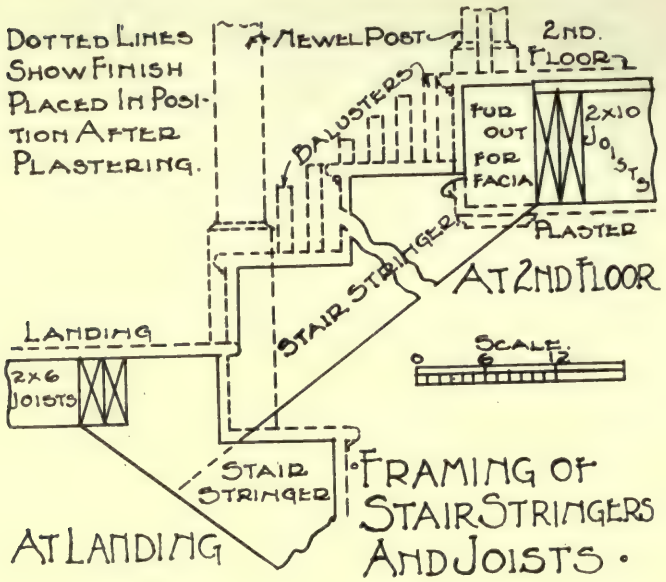
There is always one less tread than riser. Therefore with 16 risers there will be 15 treads equal to 150 inches at 10 inches each, or 12 feet 6 inches. This means that a stair with a total rise of 10 feet, composed of 7½-inch risers and 10-inch treads, will have a total horizontal direction of 12 feet 6 inches. This much space is needed for the steps alone.

If landings are introduced the whole stair will occupy more space but the actual amount occupied by the steps themselves remains unchanged.

Headroom.

There should be at least 7 feet above the step where the floor comes nearest to the head in passing up or down. With the thickness of the joists, flooring and plaster added (equal to one foot) this means we must descend 8 feet, equal to 13 risers, which at 7½ inches each will be 8 feet 1½ inches, a trifle over. Only 12 treads will be required for this distance, equal to 10 feet at 10 inches each. Apply this by measuring 10 feet from the top riser of the stair, back in a horizontal direction level with the second floor. At this point the stair well, as it is called, can be floored over, but anything short


10 11 12 13 14 15 16
DOWN
LANDING
A
B
D
2ND FLOOR
KITCHEN
DOWN TO GRADE DOOR & BASEMENT
9 8 7 6 5 4 3 2 1
10" 10" 10" 10"
UP
FIRST FLOOR PLAN
2'-8"
2ND. FL.
12"
LANDING 10"
7'-0"
9'-0"
1ST FL.
DOOR 1 STEP ABOVE GRADE
GRADE
SEC. ON LINE A-B
SEE PLAN



of 10 feet will mean less than 7 feet in the clear for head room.

If a landing occurs before 13 risers have been counted walk across the landing and add the remainder of the 10 feet to the distance measuring from the first riser below the landing. The landing cannot be counted in the distance traveled because it is level and no progress is made downward.

Note on the First Floor Plan of stair that 10 risers are figured up and 3 risers going down to grade are equal to a total of 13 risers, necessary for 7 feet headroom with this rise and run of stair.

The section on line A-B shows the basement stair starting at grade, with 1 step outside and continuing up 4 steps inside to the first floor level. Each riser of 7½ inches is marked with a figure from 1 to 16, inclusive, from first to second floor.

Construction Details.

The drawing marked Stair Details shows 2 joists at first floor supporting the stair string. This doubling of joists about openings in the floor was explained and illustrated in the article upon framing.

The string is cut from a 2"x12" plank, 10 inches for the run and 7½ inches for the rise in this case. Sometimes the triangular blocks that are cut out are nailed in position upon a 2"x6" plank, thus making another string. This should be carefully done to bring properly into line and avoid a creaking stair. Strings should not be set much over one foot apart. Note the shape of the string at its connection with first floor, landing and second floor as illustrated. Strings should be set true and carefully nailed.

The finished tread and risers are tongued and grooved as shown, the nosing is made upon the tread with a cove beneath, in the angle with the riser, and the whole is glued, nailed and screwed together.

The finished string may be made either open or closed as illustrated and the treads and risers are "housed" into it.

The newel posts should be placed securely in position, the stiffness depending so much upon them. The newel at the foot of the stair is usually larger and more ornamental than the others.

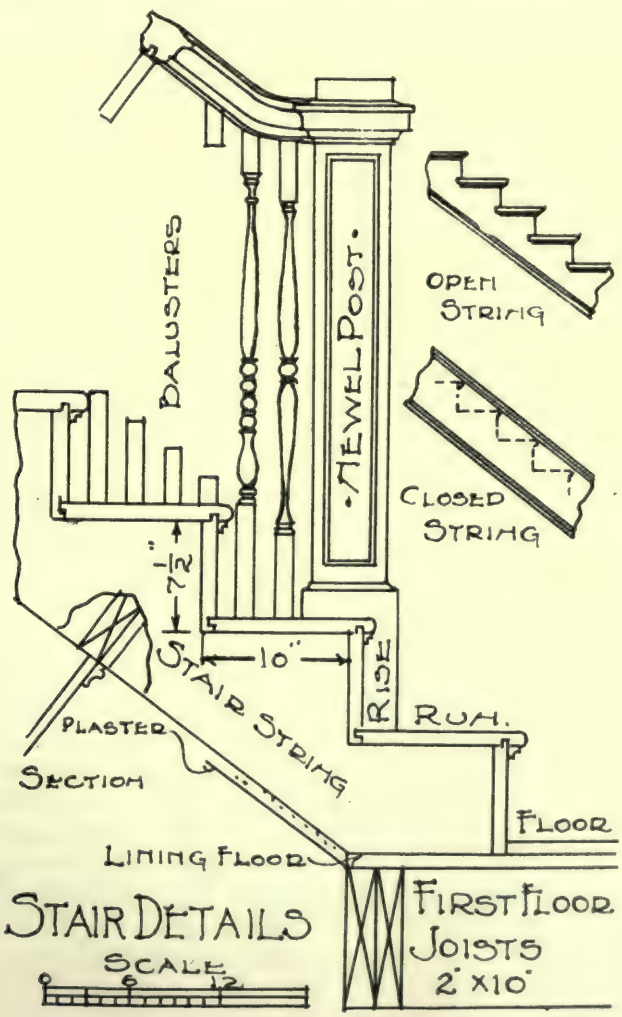
The rail should be of a pattern to easily fit the hand and should be 2 feet

6 inches above the nosing of each step, measured straight up to the top of the rail. Where the rail runs level it should be 2 feet 8 inches above the landing or floor to top of rail. Union with newels must be made by curving the rail in many cases, to give a pleasing line and avoid abrupt and awkward intersections.

Balusters are usually used for filling and may be turned or square. Note that the facia about the stairwell at second floor has been furred out to bring it in line with the top riser. This makes it possible to start the newel post upon the floor instead of having it project below the ceiling, with a turned "drop" as it would do if the facia were placed against the doubled joists. This is a neater method and could also be accomplished by placing the newel back in line with the joists, but would require an extra curve in the rail. The balusters for level rail will be a little longer owing to extra height.

Many fillings are used other than balusters and quaint effects are obtained which are very pleasing.

Stock stair details should be intelligently selected. If the house is in a certain architectural style, the stair should be in the same style. Wainscoting should be carried up the stair if it is provided in the hall, to get the best effect, often it may be stopped at the first landing if economy demands it.



Designs for the Home-Builder

Design B 291.



THIS bungalow is specially designed for a corner lot with the entrance portico on the long front and towards the principal street.

The plan affords a large living room on the main front with a wide piazza across the side street front 8 feet wide and 28 feet long, with wide French windows opening from the living room, also from the dining room onto it. The size of bungalow is 45 feet breadth of front and 28 feet depth of main part, with an extension in the rear for small third bed room and rear porch. There is one large main chimney with flue for furnace, kitchen and fireplace. The interior is designed to be finished in plain Mission style with heavy beam ceilings, showing wood construction, over main living room and also over dining room.

The front left hand sleeping room opens out of the living room and communicates with the second and third bed rooms by small private hall and the bath room conveniently arranged between the two front bed rooms. These two rooms are planned with windows across the entire side, made to open up into pockets and thus affording open sleeping rooms. Closets are conveniently located and a linen closet off from the bath room. There is a good pantry between kitchen and dining room and a closet out of kitchen for tin ware, brooms, etc. The stairs are very central, opening out of the side hall and leading up directly to the highest part of second or attic floor, that affords a fine large floor space for storage and may be utilized for two sleeping rooms if required.

The floor is of oak stained and the woodwork of pine with mission stain. The dining room has a pretty Dutch window extended from the end of room and combined with a sideboard, giving a very pretty effect. There are also book shelves built into the wall between dining room and living room.

There is a good basement for heater, fuel, laundry, etc. It is designed to cement the exterior with a pebble dash and paint all trimmings, cornices, columns, etc. white and stain the shingles red. The estimated cost is $2,600, exclusive of heating and plumbing.

Design B 292.

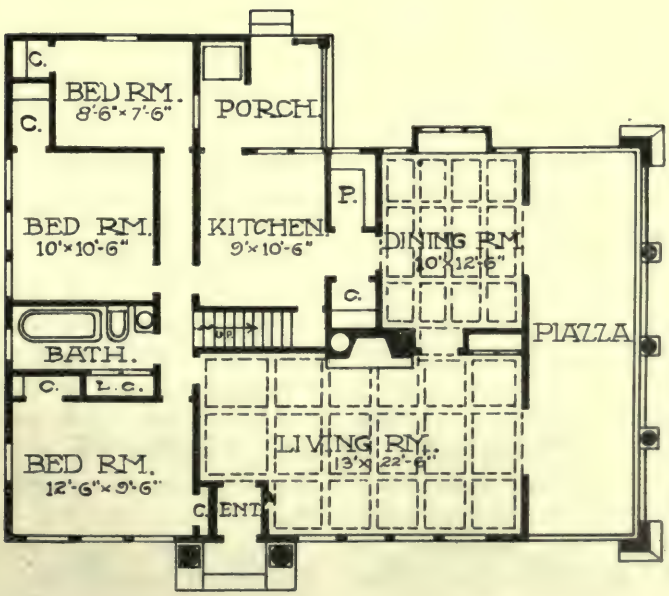
This bungalow is out of the ordinary in as much as it has three chambers on the ground floor. They are of good size and have each a closet. A hall which is closed from the main living rooms communicates with the bath room. The plumbing is grouped with all fixtures adjacent, thus saving in its installation. The living room has a fireplace and communicates with the dining room through a cased opening. A pantry is placed between dining room and kitchen with doors so skillfully placed that hardly any additional steps are necessary in serving. The stair is conveniently placed that the basement may be reached from either kitchen or hallway. There is a good attic space where three rather low but really very acceptable rooms may be had. The exterior is of shingle or siding with field stone foundation and piers. The porch is large and any or all of it can easily be screened in. The finish is in birch with birch floors. Hot water heat. Size 40 feet wide by 30 feet deep exclusive of projections. Basement



—Chas.S. Sedgwick, Architect

A Corner Lot Bungalow

DESIGN B 291



7 feet, 6 inches high, first story 9 feet. Estimated cost, $2,900.

Design B 293.

This house is in the Dutch Colonial style with its gambrel roof, quaint windows and outside brick chimney. On the first floor is the central hall with staircase, living room, dining room, butlery, kitchen, cook's pantry, and toilet room. The finish and floors are of fir except rail and treads, which are of mahogany. All interior trim is painted ivory color. There is a brick fireplace in the living room and attractive china cupboards in the dining room. On the second floor are three bed rooms, a bath room and there is an ample bedding balcony from the stair landing.

The principal chamber contains a fireplace and an alcove dressing room containing a wardrobe adjacent to a good clothes closet. The walls are tinted in colors. The windows of the front are largely of the casement variety. The body of the house is 40 feet wide and varies in depth from 25 feet to 29 feet, 6 inches. The house was built in Spokane for about $5,000.

Design B 294.

This attractive little home has a stucco exterior on metal lath, a foundation of cement blocks and shingles in the gable ends. The living and dining rooms have beamed ceilings and are finished in oak. The balance of house is finished in birch except the stair, which is in Circassian walnut. The floors are in birch throughout. The fireplace in the living room is a pleasing feature, which also serves a practical purpose in the spring and fall evenings when the heating plant is not in use.

Leaded art glass is placed in position at various places of interest, giving an artistic atmosphere to the whole house. The plan is interesting and convenient in its layout and is well appointed for service. There is a good basement containing laundry, fuel bins, hot water heating plant and abundant storage space. The size is 28 ft. by 38 ft. The cost is estimated at $3,500.

Design B 295.

This bungalow was built in California and contains eight rooms, a sleeping porch, a pergola, porch and porte cochere. The den and living room have fireplaces, the dining room has a buffet and each of these rooms a beamed ceiling. The sleeping porch has a disappearing bed. The exterior is shingled. Oregon pine stained is the finish of main rooms, with white enamel in chamber portion. The size is approximately 34 feet by 52 feet, 6 inches. The itemized list of expenditure does not include the item of heating and no basement stair is indicated, showing that only a foundation is provided.

Lumber	$720
Carpentry	600
Masonry and plastering	410
Painting and papering	290
Sash and doors	250
Hardwood floors	180
Hardware	90
Plumbing	270
Electric work	90
Total	$2,900

Design B 296.

This design shows one the pleasing type of square house, with some unusual features in its exterior arrangement. The living room is one of the most generous dimensions, taking in with the inglenook, the full length of the house, and it is made to appear even more spacious by being screened from the main portion of the hall and not divided from it by a solid partition. The little rear porch is most convenient for access from the garden to either the basement, kitchen or main house.

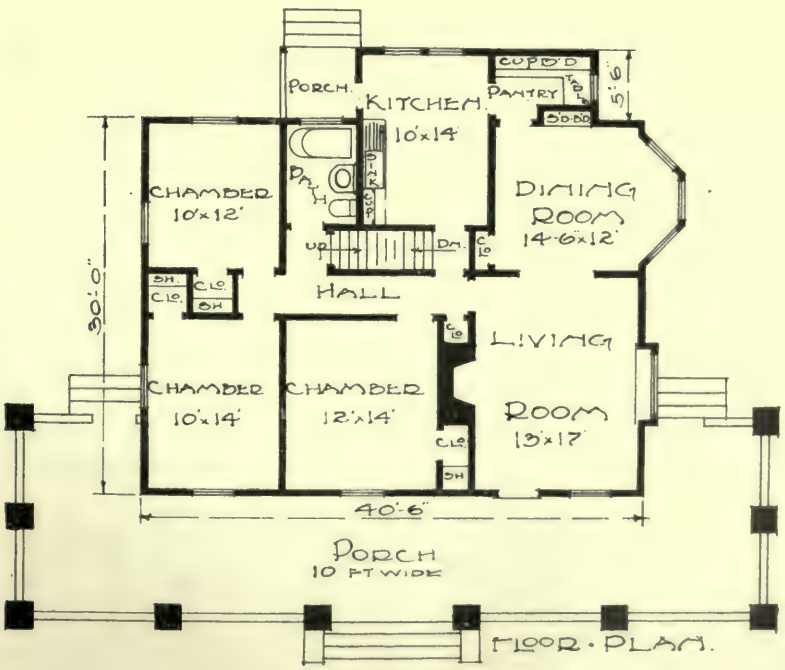
The second story shows most generous closet space, that connecting the



—Downs & Eads, Architects

A Bungalow Showing Oriental Influence

DESIGN B 292



owner's chamber with bath, being a fine sized room, lighted, and with wardrobe cases having sliding doors lining the walls. The sewing room, with its bay and built-in seat, would often be called, instead, a boudoir or den.

The basement has complete laundry and is provided with a hot air heating plant. The attic space is finished and contains two good chambers and a complete bath, besides storage space.

The interior finish is of imitation mahogany in the living and dining room, white enamel with beamed ceiling in hall and hardwood floors throughout. The exterior is of clapboards. Cost, $4,500. Width, 41 feet, 4 inches; depth, 37 feet, 4 inches; height of first story, 10 feet, 3 inches; second story, 9 feet, 3 inches.

Design B 297.

This is a sensible square house of brick and stucco exterior. The living room and hall are practically in one, owing to the wide columned opening. The ceiling is beamed and there is a large fireplace centrally located. A pleasing feature is the conservatory at the far end. The buffet in the dining room is in view from the hall. These rooms are finished in oak with natural birch in pantry and kitchen. A stair from rear hall combines with the main stair at the landing. On the second floor are four chambers with closets, a linen closet, broom closet, bath room, sleeping porch and balcony. The finish is white enamel. The attic affords good storage space. The basement, 7 feet, 6 inches in height, contains laundry, storage space, fuel bins and hot water plant. The first story is 9 feet and the second story 8 feet, 3 inches in height. Size 33 feet by 30 feet, without porches The cost is estimated at $5,500.

Design B 298.

The subject of this design is a brick cottage for first story with shingles in second story and gables and a slate roof. The main roof coming down into a graceful sweep over front porch together with the octagonal dormer on front and balcony, make a very attractive exterior.

Entering directly into a good sized reception hall, we have on either side a living-room and parlor. These rooms are connected to hall by a cased opening. At the rear of the hall is the stairway ascending to the second story and the doorway leading into dining-room. The dining-room is connected to kitchen by a pass pantry.

In the basement, which extends under the entire house, is provided a hot air heating and ventilating system, laundry with wash trays and cement floor to basement. There is a clothes chute built in from bathroom to laundry.

Both front and rear porches have stone walls around same and the floors are of cement. This insures against rotting woodwork around porches.

The finish of main rooms of the first floor is in oak. Hardwood floors throughout the entire first story, second story, hall and bath. Balance of finish, painted woodwork.

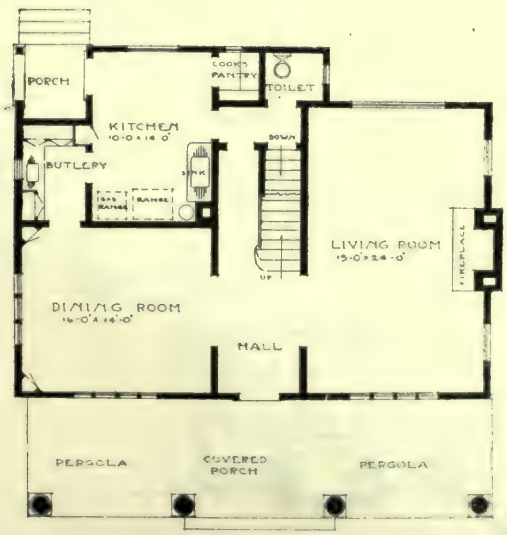
Cost $4,200; width, 33 feet; depth, 30 feet 6 inches; height of basement, 7 feet 6 inches; first floor, 9 feet 9 inches; second story, 8 feet 9 inches; lowest height of second story, 8 feet.



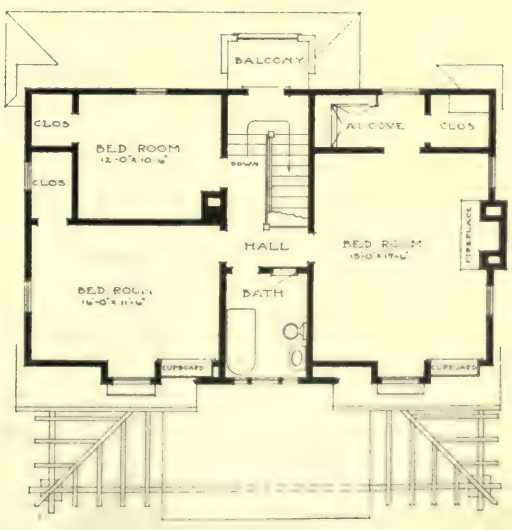
—Keith & Whitehouse, Architects

In Picturesque Dutch Colonial Style

DESIGN B 293



FIRST FLOOR PLAN



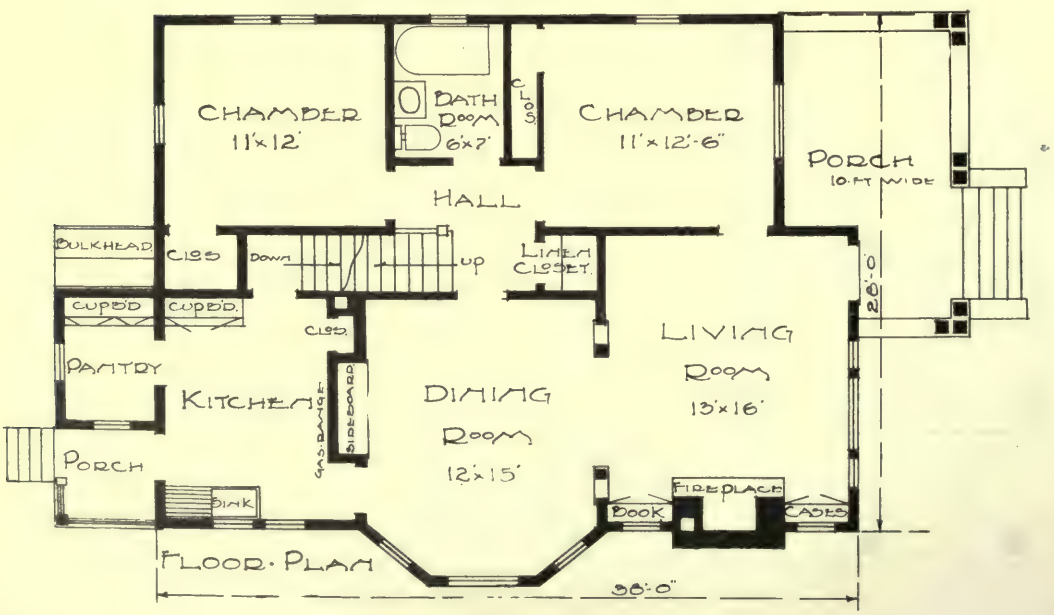
SECOND FLOOR PLAN



—Rollin S. Tuttle, Architect

An Artistic Stucco Bungalow

DESIGN B 294

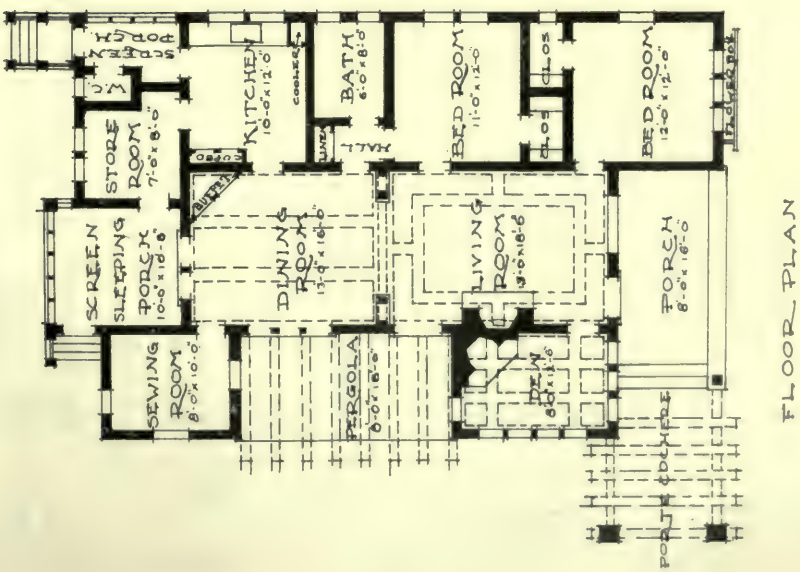




—W. R. Worthern, Architect

A Bungalow in Craftsman Style

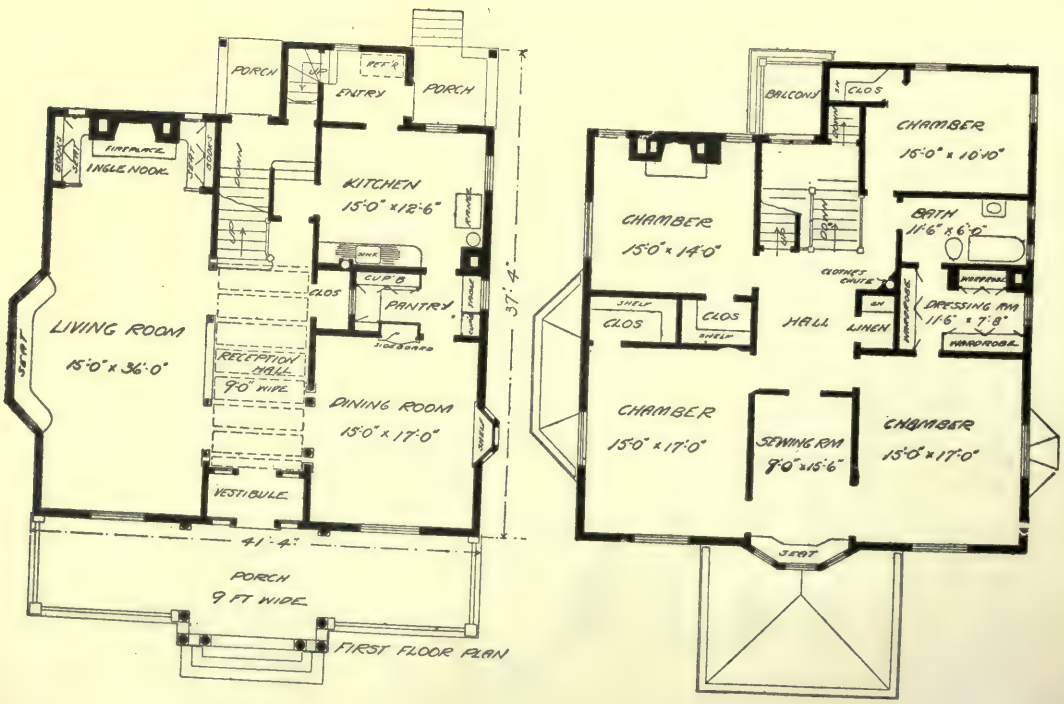
DESIGN B 295





Colonial Treatment With Terraced Front

DESIGN B 296

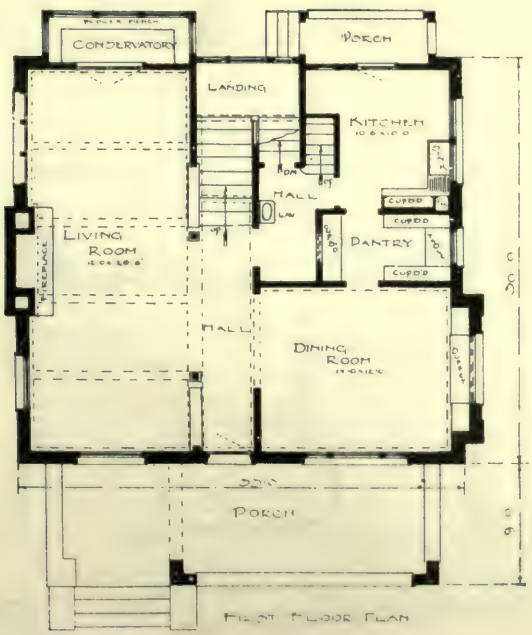


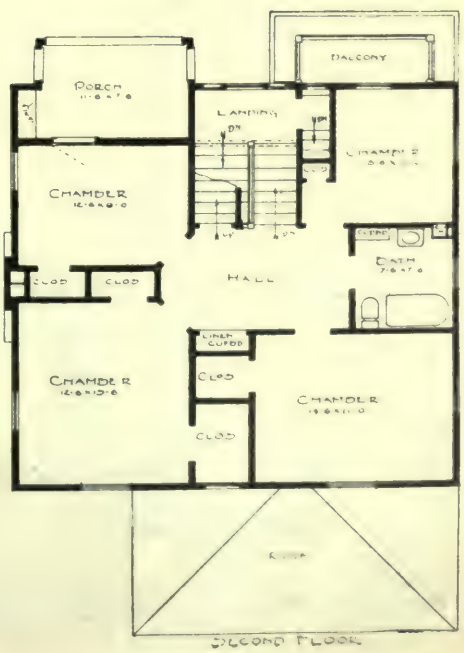


—Arthur C. Clausen, Architect

A Square House of Brick and Stucco

DESIGN B 297

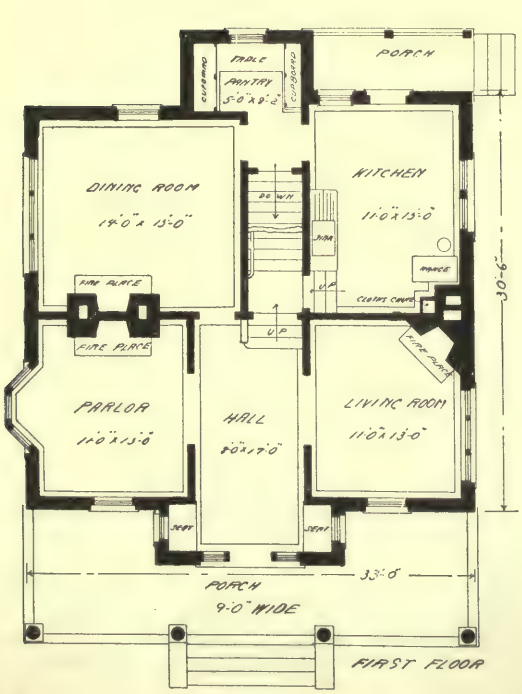


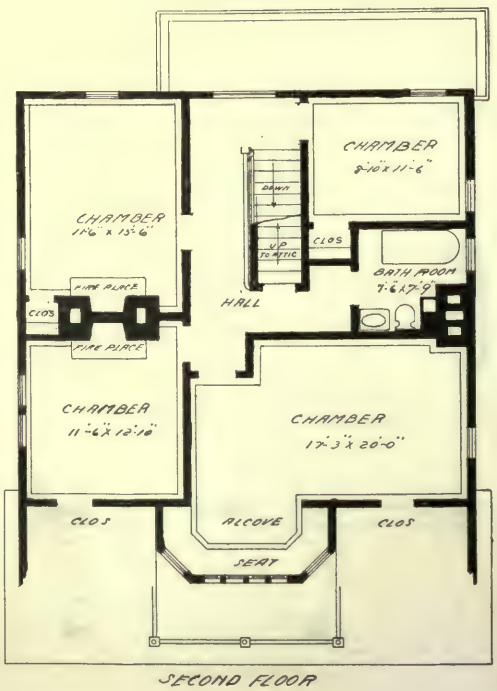




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DESIGN B 298





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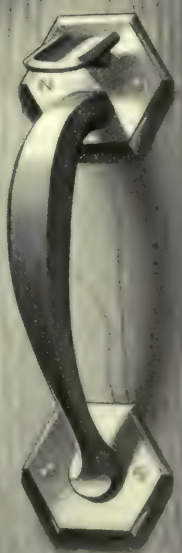
The architect analyzes the cause of such impressions. He knows that inharmonious hardware at the focal point—the entrance door—can greatly mar an otherwise handsome building.

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Conducted by ELEANOR ALLISON CUMMINS, Decorator, Brooklyn, N. Y.

(Miss Cummins will be pleased to send information as to where the articles mentioned below may be had upon receipt of a self-addressed stamped envelope at 413 Clinton Street, Brooklyn, N. Y.)

Color Schemes for the Small House.

ONE reason why so many houses of the average type, of moderate dimensions and medium construction, are unsatisfactory, is that they are so often decorated in a fashion out of all keeping with their size. The average woman is apt to see the picture of an interior with pleasing features, and to transfer it to her own house, without asking what were the dimensions of the original room, or whether it is likely to harmonize with her belongings. For example, there are on the market a number of papers in the flower, foliage and bird designs of old crewel embroideries, some of English, some of Chinese inspiration. One of these papers is splendidly effective in a dining room thirty feet square, with white woodwork and mahogany furniture. But lay it in a room of half the size, with dark woodwork and mission furniture and it becomes grotesque. The fashion of having each room in a different color is an admirable one, if the rooms are well separated, but is inappropriate for the house whose first floor, owing to the size and number of the doors, is practically all one room. Then too, few people understand that certain colors diminish the apparent size of rooms. For proof of this, recall the vogue of red dining rooms and halls.

The average house needs a neutral treatment. The two neutral tints are gray and brown, and each is capable of many modifications. Of the two, brown is better suited to the needs of the ordinary house, because it is warmer in tone and shows soil less than gray. Moreover, it is a more workaday looking color, for gray is so associated with the French style of furnishing as to have a suggestion of elegance somewhat out of keeping with the hard usage of the living rooms of a small house. Often, however, it is a good plan to unite the two, to use brown tones for the lower floor, and gray walls for the bedrooms, giving the furnishings of each a different coloring.

The Tone to Choose.

There are browns and browns, and in some of the darker tones nothing is uglier, while many of the light tones are absolutely flat and uninteresting. Generally speaking, the red browns are taboo. They are good in combination, but unpleasant in quantity. The best brown is a medium tone, with a distinctly yellow tinge, and some very satisfactory golden browns have a suggestion of green.

One of these medium browns lends itself to almost any combination of color. It can be made the basis of a scheme in greens and browns, of blue and brown, or of that delightful blending of bluish greens, greenish blues and faded rose characteristic of some Oriental rugs. It is suited to any of the wood stains or finishes, or to painted woodwork darker than itself, in fact to almost everything except white paint. Even this difficulty can be surmounted for a drawing room by using a yellow wall, which makes a slight but agreeable contrast to the brown of the adjoining rooms.

With a ground floor scheme of brown it is possible to give each room a character of its own, yet harmonious with that of the others. In the hall the brown may be used in several tones of itself, in the living room in combination with green,



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or with Oriental colorings for furnishings, in the dining room associated with blue. Any of these is an admirable setting for pictures, for ornaments and for people, and better adapted to the somewhat miscellaneous character of most people's possessions than a more positive scheme of coloring.

Rug Possibilities.

For a long time it seemed almost impossible to get anything in the shape of Oriental rugs, which would harmonize with a neutral scheme of coloring, and even now the antique rugs are nearly all in the brighter colors. But within the last year or two the assiduous shopper has been able to discover blue and dull greens and faded rose tones combined with browns in the moderate priced Oriental rugs. A Khiva rug, of silky texture and most effective design combines deep dull blue and various shades of brown and tan most effectively. This is about 3½x4 ft. and costs $40. A Mossoul, somewhat larger, and rather darker in color, is $25. A Beloochistan rug, in blue, brown and rose tones, at $30 has the quaint broad selvaged ends, peculiar to that make, and costs $30. A small patterned Bergamo, 4x5½, costs $45. The mere detail of sizes and prices means nothing, but it may be said that any one of these rugs is a permanently valuable possession, and like all good Oriental rugs, practically indestructible, the colors being absolutely free from any aniline taint.

In larger sizes, a 6x9 Beloochistan, with selvage ends, can be had for $85. A much larger rug, about 10x12, in the same general colorings can be had for $250, while a Bokkara of different proportions, 4½x10, is $90.

It cannot be denied that the first cost of an Oriental rug is a heavy item, but it is more than balanced in a few years by the permanent character of the investment. And for the small house, with hardwood floors, two or three of the smaller rugs are apt to be far more effective than a single large one, a great part of which must necessarily be hidden by the furniture. But important as are the utilitarian considerations of price and wear, it should never be forgotten that a good Oriental rug is a never ceasing delight to the eye, and that with the gradual commercialization of the Orient, it is quite on the cards that the handmade rug may cease to be produced in the course of time, and that the better specimens may appreciate greatly in value.

Oriental Drapery Fabrics.

Owing to the fact that they are not carried in general stores, many people are ignorant of the wide range of inexpensive and effective Oriental fabrics at their command. Of all the Japanese and Chinese textiles the only one familiar to most of us is the figured crepe, and a careful inspection of the stock of any of the large Oriental shops is a revelation. For instance, there is a great variety of semi-openwork materials for curtains, and in many colorings. Of these may be mentioned Bokkara net, in stripes, the open work stripe being a succession of wheels, the solid stripe having a Greek key pattern, the whole being brightened by the introduction of metallic threads. This is effective for inside curtains and is also used for a border for curtains of plain material or as strips across the ends of the fashionable long sofa pillows.

Indian Madras at $3 a yard, two yards wide, comes in the dark and medium colors of the Scotch fabric, but the designs are less formal. Moorish tapestry, a plain colored fabric with a watered effect, is $1.35, fifty inches wide, and is used for inside curtains or for portieres. A cheap material for hangings is Netsu cloth, a Japanese homespun, some of it in plain colors, some with a white thread interwoven, giving a mottled effect. This is 35 cents a yard, forty inches wide. Kutch cloth is a plain fabric in smooth and rough weaves, much used for curtains, with trimmings of Japanese chintz. These Japanese chintzes, thirty inches wide, at 50 cents a yard, were mentioned in a recent number of the magazine, as copying the designs and colorings of the Japanese brocades. The Kutch cloth comes in natural tones and is 35 cents a yard.

Washable Tapestries.

A delightful and unusual fabric is the heavy washable tapestry sixty inches wide at $1.85 a yard. It comes in two

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designs, the iris and the bamboo, of which the latter is by far the most effective. The colors are blue and white, red and white, and yellow and white. It is heavy enough for a couch cover, and would make an admirable covering for one of the high-backed grandfather's chairs, or, bordered with a narrow openwork gimp, a bedspread for a man's room.

Blue and White Crepe.

The blue and white crepes, in fact all the cotton crepes, vary greatly in merit, so that it is pleasant to be able to note some very satisfactory ones. These have the typical chrysanthemum and bamboo designs in strong blue on a white ground, and the same patterns in white on a solid blue ground. The blue and white crepes are guaranteed to wash perfectly, and they are most effective for bedroom furnishings. This is not the season for piazza furnishings, but no one who has ever seen piazza cushions of blue and white crepe used where they were relieved against the creosote stained shingles of a house, would ever think anything else possible for that sort of a house.

Anatolian Curtains.

The charm of Anatolian curtains is not in the fabric, although that is a very fine textured, crinkled cotton, of creamy tint, sometimes plain, sometimes delicately striped with color, but in the fringe, which is knotted in deep points and finished off with small tassels. These curtains are most effective when hung, as the fringe is carried down both sides and across the ends as well as up the center of the curtain. For about three feet from the top, the two halves of the pair are sewed together. The fringe is carried around this upper end, and the sewed together part is intended to serve as a valance.

These curtains are also cut up for a variety of purposes, bedspreads, bureau covers, tablecloths and pillow covers. For the latter the fringe is carried around the entire pillow, or in the case of a long pillow, the fringe goes across the ends only. Anatolian curtains are 3¾ yards long, and cost $4 a pair.

Tan Linen and White Embroidery.

Effective bedroom furnishings, are of deep tan colored linen, edged with white lace and embroidered in white. There is a marked tendency toward the use of colored materials for such purposes, rather than the stereotyped white. They require more care in the laundering, but they keep clean longer, and in a room with much positive color the pure white of starched linen is apt to strike a false note.

Other effective pieces are of natural colored crash, marked off in squares with lines of blue or green embroidery, with a square or dot of black at the intersections of the lines. A cotton gimp is a much better edging for these than the usual scallop, and many of the gimps are extremely decorative.

A Novelty in Utility Cases.

Something new in the popular cases of boxes which have been dubbed utility cases, is the ordinary white enameled skeleton, with four long boxes and solid ends, with an addition of a swinging mirror, with three small drawers below it, running the length of the case. This makes the case into a toilet table. The fronts of the drawers are covered with the same cretonne as the boxes and have glass knobs. The price is $27.50. The case without the drawers and mirror costs $25.

Wicker Morris Chairs.

The Morris chair in wicker is new and is a substantial improvement upon the wooden article, as it is extremely light. The adjustment at the back is made by a rod with ball ends covered with wicker. Those shown have cretonne cushions, but there would seem to be no reason why they should not be covered with canvas or tapestry.

A New Development of the Sectional Bookcase.

One of the firms making the popular sectional bookcase, supplies a section uniform in size with the ordinary sort, which is fitted up with pigeon holes, paper racks, and all the other desk conveniences. The front of the section lets down and makes a place to write upon. This section is intended to form the third from the bottom of a stack of sections, and the arrangement is a very convenient one for a small room.





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ANSWERS TO QUESTIONS
ON INTERIOR DECORATION

Editor's Note.—The courtesies of our Correspondence Department are extended to all readers of *Keith's Magazine*. Inquiries pertaining to the decoration and furnishing of the home will be given the attention of an expert.

Letters intended for answer in this column should be addressed to Decoration and Furnishing Department, and be accompanied by a diagram of floor plan. Letters enclosing return postage will be answered by mail. Such replies as are of general interest will be published in these columns.

E. M. S.—The enclosed rough sketch of the first floor of a little house I am building will give you some idea of its arrangement. My furniture for both living-room and dining-room is dark polished quarter-sawed oak—chairs and davenport in black leather. Furniture heavy, plain and good, and I can't change it just now. Piano only piece of mahogany I possess. Have sectional bookcases. I had thought of white woodwork, white mantel, plain and heavy, no mirror and red tiles, soft green walls for both rooms; tread of steps (pine) and railing at top stained and waxed oak like the floors, to match furniture. Mantel in dining-room like my sideboard, in oak, with long narrow mirror straight across the top and possibly white tile to avoid too much color, but in the last "Keiths" I notice "white woodwork will not adapt itself to oak." My rugs for the whole lower floor are only Axminsters in red, black, blue and green—just enough white to brighten. All dark and inconspicuous. These will have to do for the present.

E. M. S. Ans.—Your floor plan shows spacious rooms well lighted, rooms that will bear a stronger treatment than white wood finish and more in keeping with the substantial and good oak furniture you describe. White wood finish is not happy with heavy oak furniture and it is strongly advised to stain the wood trim a fumed brown. Send to the enclosed address of manufacturers for their booklet of stains and they will furnish it, and a wood sample treated with the brown oak stains.

You can modify the depth of color by thinning the stain and brushing on more lightly. Do not wipe off with a cloth, as most painters insist on doing, but try it first on a piece of the wood, get it right and then brush it on, following the directions.

A white mantelpiece would look particularly out of place with your furnishings and it is advised to treat the living-room mantel the same as dining-room; also to use dull green tile rather than red, if the walls are to be green in color. Let the green tone of the wall be soft and not bright. The treads of the staircase should be of oak unless it is a very hard pine indeed. Your rugs will also be more in harmony with this woodwork than with white. The little casement window could have thin white scrim or etamine or even cheese cloth curtains tied back close, half way, edged with a narrow finishing edge and the scrim curtains at the other windows hang straight. These curtains with white ceilings would give a sufficient relief to the rooms.

In the living-room, over draperies of green sun-dure could be used if desired.

J. L. D.—Please suggest a decorative scheme for my new home. Floor plan enclosed. The living-room is to have a cream brick mantel. What color mortar would you suggest to use and what kind of andirons would be the prettiest—iron or brass? What color walls and woodwork will be best for the hall and living-room and what kind of furniture will be prettiest? How would you finish the parlor and dining-room? I had thought of finishing my dining-room in mahogany. What kind of walls, woodwork and mantels would you suggest for the parlor and dining-room? I have a mahogany piano which I expect to put in the parlor. My floors over the entire lower floor are to be of hard wood. What would you suggest for the library? As you see, my entire lower floor can be thrown together with sliding doors. My second floor is to have the old ivory woodwork. What tint would you suggest for the walls of each of the rooms and hall and what would be

'mid pleasures and palaces



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NEW YORK. CHICAGO. BOSTON

the most effective way to furnish and decorate my young lady daughter's room? The hall and living-room have beams across the ceiling.

J. L. D. Ans.—So handsome an interior certainly demands thoughtful treatment.

Starting with the proposed cream brick facings of living-room fireplace, it is advised to transfer this facing to the parlor and to substitute in the living-room a facing of the rough surfaced brick in dull green. You have many fireplaces and while cream brick would be admirable with ivory woodwork in parlor or dining-room, it is not a good living-room treatment. Ivory woodwork in the dining-room with mahogany furniture would be ideal in this southern home and should be used in the parlor adjoining. It is advised, then, to make the hall and living-room finish dull, antique mahogany; the library can be treated by itself, yet in harmony and it is suggested to use for the library woodwork silver grey stain, with furniture in silver grey oak and either deep blue or rose red coverings and hangings. Fireplace facings of grey pressed brick, iron dogs, dull brass fender and andirons for living room, with bronzy green walls. Landscape paper paneling in the hall in light greys, no color, above a mahogany 4-foot paneled dado. As to mantels in parlor and dining-room, we should prefer the ivory of the wood finish for both rooms, though a mahogany mantel could be used in dining-room if you wish. It will not be so pretty. We should like to see this room with a silvery green grass cloth wainscot six feet high and on wall above this a reproduction of an English hand print paper, passion flower vine with rich foliage. The reproduction is only 50c a roll, the original $3.00 a roll.

G. F. H.—Am just completing a five room bungalow and would like suggestions on interior decorations. The woodwork is to be a dull brown. The living-room is separated from dining-room by a buttressed opening; should these two rooms be tinted and treated alike? If so, would you suggest a buff tint for the walls with a little lighter ceiling and a green rug with brown Craftsman furniture to match woodwork in living-room and a tan or brown rug with oak dining-room furniture for dining-room?

Would you suggest a green tint for the front bed-room, which is very light and is to be furnished in mahogany and brass bed with ecru and green drapings?

With buff tinted wall should the dining-room have yellow and orange dome over table? and should the lights at side of buffet be the same color? For lights in the living-room, with the above mentioned color scheme of tan and brown and green would you suggest a green reading lamp? and should the shower lights and mantel lights (the fireplace is red brick) also be green? Or would you suggest a green reading lamp with green mantel lights and yellow or white shower lights?

G. F. H. Ans.—Your own ideas in regard to wall tones, etc., of your rooms are well thought out. We would only suggest a pale tan or ecru in lieu of the buff tone for the walls. The solid green rug will be excellent in the living-room with brown and ecru in dining-room. A plain green wall in a bed-room is always rather trying. Can you not relieve it with a frieze of some sort? The tint should be very soft.

We should not have a dome at all, but a hanging fixture, with only slight color effects. In the living-room the reading lamp could be in green foliage, but uncolored or slightly colored glass would be much better for all the other fixtures.

Mission Furniture in Mahogany.

It may be news to most people that the Missions of Southern California, from which we derive our Mission style, were furnished not in oak but in mahogany. And although the style was as simple and massive as its modern reproduction, chairs and table were often beautifully carved. One furniture firm is making mahogany furniture, exactly copied from pieces in the old Missions. Although the wood is so much more valuable, the furniture is sold at about the same price as the best quality of Mission furniture in oak.

Some painters say a little turpentine added to boiled oil for outside work is better than the boiled oil alone.

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IT not only makes Concrete, Cement and Stucco houses uniform in color, but it also makes them waterproof, so that rain and dampness cannot penetrate them.

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IT is made in a variety of decorative shades including a superb reproduction of Bedford Sandstone, Pure White, Colonial Buff, and Pompeiian Buff. It transforms a dull, drab concrete building into a thing of beauty. It is not expensive, is easily spread on with a brush and any painter can use it.

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Our Beautiful Free Book—"Home and the Fireplace" is a regular mine of information about fireplaces. It tells all about Colonial Fireplaces, the only kind in the world sold under a positive guarantee. It tells all about the Colonial Plan that makes buying a fireplace as simple as ordering a picture. Besides, it contains a number of beautiful illustrations of the splendid Colonial Designs—just a few representative selections from the complete Colonial line with descriptions and prices. If you have any idea of building, or if you would like to know how and where you can add a fireplace to your present home, you need this book. WRITE TODAY—Just send your name and address, but we would suggest that you write at once. Just drop us a line right now.

Copy of our book of fireplace detail, explaining thoroughly the Colonial head, throat and damper, is being mailed to every professional architect in the country.

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Leaving Out.

A WOMAN who has a national reputation as a writer on domestic topics, and who is also a practical housekeeper of ability, was interviewed lately. Asked what she regarded as the secret of success in housekeeping she said: "Knowing what to leave out." She went on to say that no one could do all the things she had planned, or even those which seemed to her to be necessary. Something must be crowded out; the problem was to know exactly what it should be. In her own case it had been the gratification of an artistic taste; with some one else the curtailment might be along utilitarian lines. One thing was certain, something must be crowded out.

Just what to crowd out must depend largely upon the peculiar conditions of each household. It is quite safe to say the elimination should always be with a view to greater efficiency, and that it must never be concerned with essentials. Unnecessary curtailment tends to lower the standard of living, and works harm in many ways; curtailment of essentials is an economic crime.

Take the matter of washing, a horrible bugbear in most moderate households. One must be clean, and that involves the washing of a good many pieces. But the elaboration of trimming which makes things hard to iron can be cut out. White skirts, soiled with two wearings, are luxuries, not necessities. Cotton crepe underclothes need no ironing at all, and are very soft and pleasant to wear. Underflannels and stockings last very much longer if not ironed at all, as the heat of the iron tends to destroy the fibre of the wool or cotton. In most families the underclothes of small girls might be simplified with manifest benefit.

In the matter of cooking some things can be curtailed with advantage. Is it a horrible heresy to say that if reasonably good baker's bread can be had, it is a waste of time, and no saving in expense, to bake one's own? Too many people act upon the supposition that there has been no advance in the art of the baker in the last twenty-five years. Baker's bread was, in the writer's childhood, miserable. It still is in parts of the country where there is no foreign population. Europe eats baker's bread, and good bread at that, and wherever there is a large foreign population, there you find the crisp, thoroughly baked and moderate sized loaf. As for pies and cakes, which involve a weekly baking day, most people are better off without them. Experts have traced the great increase in cancer to an excess of starch in the diet. We all know the evils of too much sugar.

These are, of course, very material things. Other things must often be sacrificed to the needs of the household, things lovely and in every way desirable in themselves. More often the things that are best sacrificed are some of the social demands, which are apt to be so imperative in a small community. That curious bit of special pleading, "The Way Out" holds up the mirror to some of these small social tyrannies, most effectively. It is doubtless agreeable to play bridge, if you happen to care for cards, but the satisfactions of bridge are not to be compared with those of a domestic circle which is cheerful and happy



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¶ OAK FLOORING ⅜" thickness by 1½" or 2" faces can be laid over old floors or over cheap subfloors in new homes at a very low cost. It is cheaper than carpets or Pine Flooring.

¶ OAK FLOORING is made in four grades in the 13-16" thickness and two grades in the ⅜" thickness. It is adaptable for the humblest of homes or a palace.

¶ Any truthful landlord will advise that OAK FLOORING is a splendid investment. No other part of the interior finish will increase the **renting** and **selling values** like OAK FLOORING.

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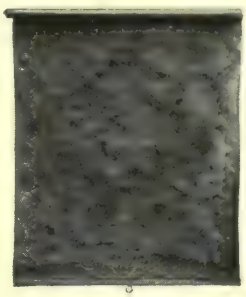
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Window Shades

Look Better — Last Longest

BRENLIN will outwear several ordinary shades and will always look well.

Brenlin is supple, not stiff—and always hangs straight and smooth. It won't bag or sag—won't crack — won't fade.



The Ordinary Shade

Look at the ordinary shade. It is cracked and streaked, looksunsightly. This is because it was "filled" with chalk or clay to give it "body," and the "filling" dropped out.



The Brenlin Shade

Then look at a Brenlin shade. It has no streaks—no pinholes. Its body is natural; there is no "filling." So there is nothing to make it crack or sag.

Brenlin is made in all colors and in Brenlin Duplex, light one side, dark the other. The possibilities of color schemes with Brenlin are almost unlimited.



Write today for this book and samples in all colors.

With the help of many suggestions in the book and samples, select your shades. Then go to any good dealer and get Brenlin. Find out why Brenlin is the cheapest shade you can put up.

Chas. W. Breneman & Co.,
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The name is perforated along the edge of every yard like this— BRENLIN Look for it.

just because you have crowded out bridge in the interest of its welfare.

It all harks back to the old matter of comparative values, or, as someone else has said, of having a nice sense of proportion. But one thing is certain, that no life, least of all that of the housewife, is roomy enough for every interest that knocks for admittance, and sometimes the most agreeable guest must stay out in the cold.

The Pros and Cons of the Laundry.

The public laundry is an indispensable institution but it has an extremely bad reputation. Some of it is perhaps deserved, for there are laundries and laundries, but it is difficult to see how with modern conditions any community can get on without it. As to the destruction of clothes in laundries, it is a matter of the relative merits of chemicals and elbow grease as destructive agents. When you add to violent rubbing on a board the corrosion of half dissolved washing powders, it would seem as if the advantage were on the side of the laundry with its liquid washing compound and mechanical rotation of the clothes in a huge cylinder.

The weak point of the laundry is when it comes to the washing of colored clothes and of delicate and elaborately trimmed underclothes and lingerie frocks. Colored clothes require individual treatment, and the more delicate clothes must be washed in the hands. Naturally attention of this sort is entirely outside the scope of the best laundries, to say nothing of the ordinary ones. Another point where there is room for improvement is in the folding of clothes. Perhaps a little united protest on the part of the patrons might effect an improvement in this respect. As it is things are often sent home folded in a way that is absolutely ludicrous.

It would seem as if the best way for the average small family of one or no servant, were to send the table and bed linen to the laundry and to wash personal clothing at home. In small families this plan might do away with the regular wash day altogether, and the clothes be washed a few at a time, as the weather, or other household exigencies dictated. In most families, especially in winter, wash day is a prolonged agony, and getting rid of it would seem to be worth a sacrifice.

Balancing the Meals.

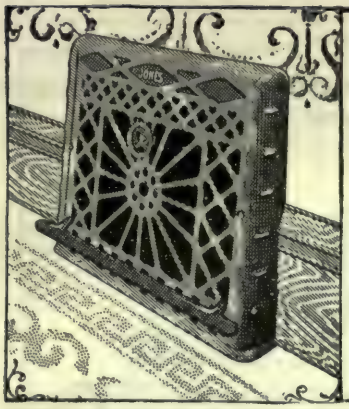
Many a meal, all of whose constituents are of good quality and well cooked, seems to be lacking in something. Generally it is because all the things which make it up are too much alike. It begins with a cream soup, goes on to rice or macaroni, and ends with farina pudding. And although each article is palatable the dinner is insipid. Or the meal may err on the score of lightness, not containing a single substantial dish. This is a very grave error. If every other dish is light, have a substantial dessert, dumplings, suet pudding, or something of that sort. On the other hand, do not add a suet pudding to a boiled dinner of corned beef and tuberous vegetables. Do not have two green vegetables at the same meal. And do not have too much proteid in one meal. If you have a white meat you may very well use some preparation of cheese for an entrée, or for dessert, but if you have beef or mutton use green vegetables and have a farinaceous dessert.

The Difference Between Cocoa and Chocolate.

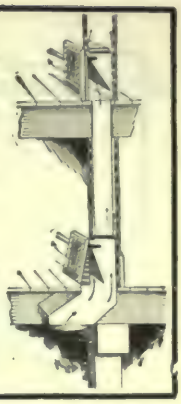
Both come from the same plant and have practically the same flavor, but in the preparation of the ordinary chocolate of commerce, more or less sugar is used. The exception to this is the so-called bitter chocolate, used by French confectioners. It follows that in making candy or cakes, one gets the flavor of the imported article more nearly with cocoa than when chocolate is used. The difference in expense is a sensible one, to say nothing of the fact that the cocoa is in powdered form and need not be scraped.

"Pink" Salmon.

In view of the small catch and consequent high price of salmon, it is consoling to know, from no less authority than Dr. Wiley, that the pink Alaska salmon has the same nutritive value as the more expensive and darker colored fish. And, apropos of salmon, do all my readers know what a delectable sandwich the smoked Nova Scotia salmon makes, when shaved very thin and laid on buttered brown bread?



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PERFECT warm air circulation is the important matter in getting results from a furnace. The "JONES" System of Heating, one principle of which is the heating of one room on two floors from the same basement pipe, insures not only a saving, but produces the results wanted.

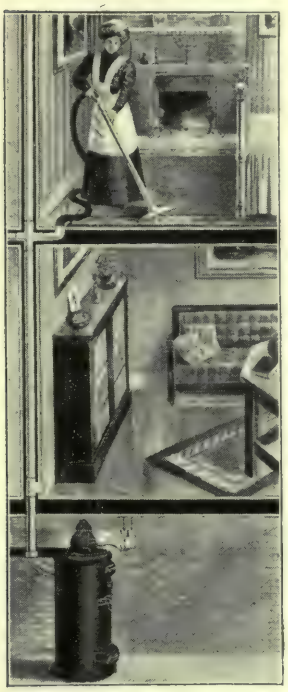
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TO THE OWNER OF THE HOUSE

Whether Home, Apartment Building or Business Block.



Every consideration of convenience, health, economy of upkeep, earning power of your investment and security against rapid depreciation demands that you install the

TUEC-170 STATIONARY Air-Cleaning System

Like modern heating, lighting and plumbing, the science of cleaning has passed beyond the experimental stage. Every really up-to-date house is assumed to be equipped with the ample piping necessary for the installation of air cleaning machinery.

The selection of *the* system certain to meet every requirement of efficiency and economy is one of the most important considerations of the modern builder. Effective cleaning depends upon 2½-inch piping with 2-inch openings.

The TUEC has demonstrated its claim upon your attention on every point.

In a recent test of five of the leading stationery air cleaning systems, conducted for the City of Detroit, Michigan, by a board of disinterested engineers of international reputation, consisting of Professor John R. Allen, of the University of Michigan; Mr. Charles H. Treat, Chief Designer of the American Blower Company, and Mr. Howard E. Coffin, Vice-President and Chief Designer of the Hudson Motor Car Company, all of whom are members of the American Society of Mechanical Engineers, the TUEC was unanimously declared to be the system of **highest efficiency, greatest simplicity, durability, silence, capacity and economy of money, labor and floor space.**

The TUEC scored a total of 97.6 points out of a possible one hundred, its nearest competitor scoring but 85.5 points.

The TUEC can be installed in any house, old or new, large or small, and is fully guaranteed. It is preeminently the most desirable of all vacuum cleaners.

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TUEC Companies in most of the large cities. Some territory still open. Write for terms.

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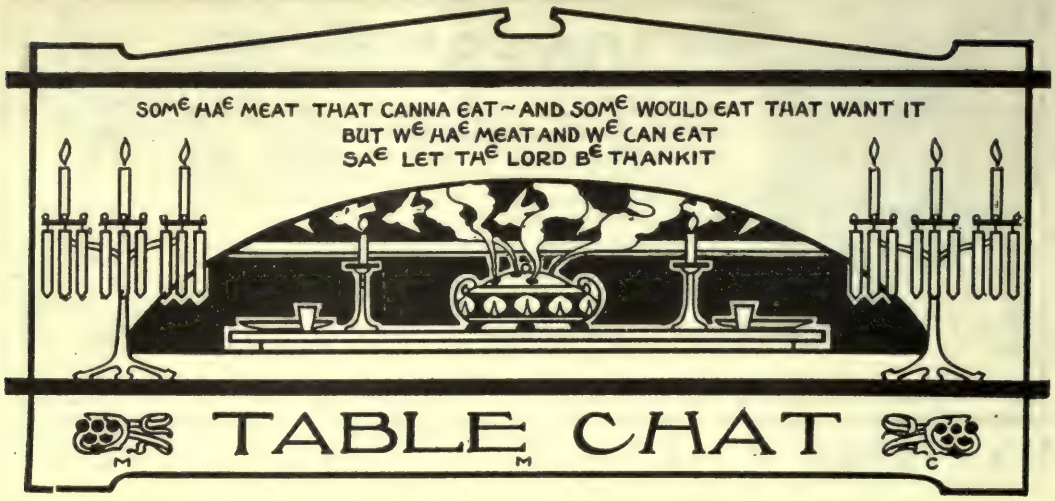
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Preparing and Serving a Thanksgiving Dinner

By BEATRICE D'EMO



THE TURKEY READY FOR THE TABLE

AS the Thanksgiving dinner is always composed of hearty dishes it is advisable to omit the fish course and to serve a clear soup, which will not take away the appetite as a cream soup would. If it be desired to have another substantial dish besides the turkey, a roast or boiled ham or boiled tongue will make a good accompaniment, and if grape-fruit take the place of raw oysters, as may be the case in an inland situation where only canned shell fish is obtainable, the oysters may be served in a scallop.

Have the oysters—if they are served raw—left on the deep shell, keeping them on ice until just before serving. Arrange on finely pounded ice in a soup plate, with a lemon containing the sauce stood in the center. The soup plate of course

For Christmas Giving



Christmas Gifts of "1847 ROGERS BROS." spoons, forks and fancy serving pieces afford utmost satisfaction. Not only do they give lasting service but always maintain their original charm and beauty. The trade mark

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guarantees the ***heaviest*** triple plate. See that it appears on reverse side of silver-plated articles you purchase. Then you ***know*** you have the

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There are many combination sets arranged in chests and fancy cases that are especially appropriate for holiday purchases.

Sold by leading dealers. Send for catalogue "L-35" showing designs.

MERIDEN BRITANNIA CO.
(International Silver Co., Successor)
Meriden, Conn.

NEW YORK CHICAGO SAN FRANCISCO

Menu

Raw Oysters with Cocktail Sauce

Consomme with Chestnuts

Roast Turkey

Salted Nuts Celery Olives

Cranberry Souffle

Mashed Potatoes Macaroni Croquettes

Creamed Onions

Shredded Celery with Graham Fingers

Fruit Jelly with Whipped Cream

Pumpkin Tarts

Nuts Raisins Figs

Cheese and Toasted Water Crackers

Coffee

stands on a dinner or serving plate, which is afterwards left for the soup plate containing the soup. With the oysters serve either crisp fingers of toast or toasted crackers, the latter put in the oven until crisp and slightly browned. For the sauce cut off the end of fine lemons, one for each guest, and take out the pulp with a teaspoon. Remove the seeds and the bitter white membrane, then mix the rest with a teaspoonful of tomato ketchup to each lemon pulp, a half teaspoonful of grated horseradish, a little salt and tabasco sufficient to make all hot, but not to an uncomfortable degree. Fill the lemons with this and keep very cold until serving time. Heart stalks of celery can be served with the oysters even if shredded celery salad follows later. The outer stalks may be kept for the salad.

The clear soup can be made the day before and reheated when wanted. As turkey is to be served the stock should be of beef, not chicken. To make sufficient for six people, put a beef shin-bone and a veal knuckle, after being cracked, in a soup pot with four quarts of cold water, three onions with a clove stuck in each, three small carrots, a bay leaf and a few celery tops. Bring to the boiling point, skim, then simmer for four hours. Strain through a cloth, then let cool and remove the congealed fat. If not perfectly clear wash an egg and mix the white and shell with half a cupful of cold water. Stir this into the soup, let come to a boil, add the juice of half a lemon and boil for two or three minutes longer. Let stand until settled then strain again through a cloth. Use a dozen chestnuts if the large French ones are obtainable, otherwise use two dozen small ones. Take off the shells, drop in boiling water to remove the skin, then cook until tender in a little of the soup stock. Split the nuts and if large cut in half. Put in the soup tureen or a few in each soup plate and pour the soup over them. When heating the soup it may be salted and peppered to taste, or the guests may be permitted to do their own seasoning at table. With the soup serve finger rolls, which should be placed at each cover with the napkin, or a thick slice of French bread arranged in similar fashion.

In selecting a turkey go by the depth of the meat on the breast rather than the size, and choose a hen in preference to a gobbler. The end of the breastbone should bend at the touch if the bird is tender. If it has been drawn at the butcher's have the liver, heart and gizzard sent home with the turkey. If the home cook attends to the drawing she must be very careful not to break the gall bag and in any case the inside of the bird should be well washed, first with soda and water then with clear water, then dried with a clean cloth. If the bird is large the lower part of the body may be stuffed with mashed potatoes, which can be used afterwards in potato cakes, the breast only being stuffed with bread and whatever flavoring is preferred. If there are several guests, however, it is better to use one stuffing throughout so there will be plenty for all. Stale bread is better than fresh for stuffing and should be cut or broken in large pieces and slightly crisped in the oven, then crumbled fine. If oyster stuffing is desired add to sufficient bread to fill the turkey a dozen large or two dozen small chopped raw oysters, which have been carefully freed from grit and shell. Season with salt, pepper and a little chopped parsley and moisten with melted butter. For chestnut stuffing add to the bread crumbs, instead of the oysters, a quart of chestnuts which have been boiled in



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RAW OYSTERS WITH COCKTAIL SAUCE IN LEMON CUPS WHET THE APPETITE FOR THE HEARTIER DISHES

the shells in salted water, then peeled and mashed. Proceed as for the oyster stuffing but omit the parsley. For sausage stuffing allow to every coffeecupful of crumbs a tablespoonful of sausage meat which has been slightly fried and the fat drained off, seasoning with salt, pepper and summer savory or sage. For plain bread stuffing use the crumbs, season with salt, pepper and summer savory or one finely chopped onion and moisten with a tablespoonful of melted butter to every cupful of crumbs. If the potato stuffing is used season with chopped onion, butter, salt and pepper. The neck and body of the turkey should be sewed up after stuffing then the wings and legs tied or skewered close to the sides and strips of fat bacon fastened across the breast. Pour a cupful of boiling water in the baking pan dredge a little flour over the turkey and roast, basting from time to time with the liquid in the pan, and adding a little boiling water if it dries out too much. Just before the turkey is done remove the bacon and let the breast become brown and crisp. The time required for cooking depends upon the size of the bird and the state of the oven. An average sized turkey, weighing from seven to ten pounds will require three or three and a half hours.

Wash the giblets (the heart, liver and gizzard) in soda water, then in clear water, and simmer in slightly salted water until tender, then chop very fine, and when the turkey is done remove to a hot platter, set where it will keep hot, pour off the greater part of the fat in the baking pan, and stir a tablespoonful of flour in the remainder, then pour in by degrees the water in which the giblets have been boiled, stirring with a fork to make smooth and cooking until brown; add the chopped giblets and boil up once, season with pepper, after which pour in the gravy boat. The gravy will not brown if too much fat is left in the pan.

The turkey may be decorated with the white leaves of celery, and paper frills may be put on the ends of the drumsticks. It is useless to attempt decorating with jelly, for the heat of the platter will only render it liquid. Sometimes mashed potato is arranged in little piles about the bird, but anything of the kind usually is in the way of the carver.

If the cranberry soufflé is served as a separate course pass jellied apples or crabapple jelly with the turkey, but the better plan is to pass the soufflé as an accompaniment to the bird. In the larger towns the pastry shells may be purchased ready made, as they are only intended for an attractive casing for the soufflé, but they can also be made at home by lining patty pans with puff paste, filling with rice and baking in a quick oven. When done remove, let cool, then turn out the rice and remove the shells from the pans, or cover the outside of the pans with the paste after larding the former, and bake in that fashion. Make rich, rather tart cranberry jelly, straining out the skin and seeds. Beat the whites of four eggs (this will make sufficient for six shells) with a tablespoonful of powdered sugar and the juice of half a lemon until perfectly dry, when



JACK'S HOUSE

(Continued)

Jack was so well pleased with his experience in "overcoating" old houses and building new stucco houses which were admired by every one who saw them, that he decided to build homes for other people using KNO-BURN Expanded Metal Lath.

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Selected Red Birch Bird's-eye Maple and Cherry Flooring

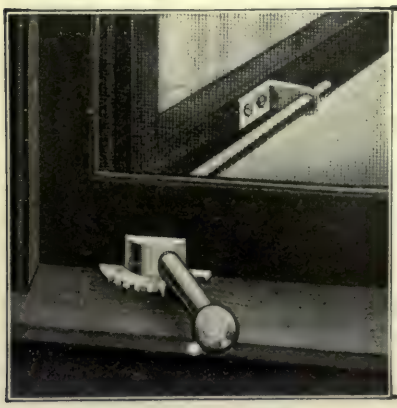
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Fruit Jelly wifh Whipped Cream

whip in by degrees a tablespoonful of the jelly, a beautiful pink foam being the result. Put some of the cranberry jelly in each shell then top with the soufflé and serve very cold.

Shredded celery salad is excellent to serve at a dinner where the other dishes are rather heavy, and also goes well with poultry. As has been said, the outer stalks of celery may be used for it, provided they are white and firm. Scrape and wash these, then roll in a wet cloth and place in the ice chamber of the refrigerator for several hours. Do not put directly on the ice or they will discolor. Just before serving time cut in three-inch lengths and with a sharp vegetable knife slit in slender strips, doing the work in a cool place so the celery will not become limp, and dropping the strips in ice water until all are ready, when pile lightly on individual salad plates, mixing with them the halves of English walnut meats which have been blanched and chilled, and pouring over a few spoonfuls of French dressing. The celery strips may also be made in little individual bundles, and a ring of sweet pepper, red or green, slipped over each, then the walnuts made in a separate pile at one side of the plate.

For the graham fingers to serve with the salad use bread a day old at least, two days is really better if it has not become too dry. Have the bread knife very sharp and butter the slices on the loaf, then cut thin, put two and two together and trim to strips an inch and a half wide and three and a half inches long. Whole wheat or rye bread with caraway seeds in it may be used in the same way.

Fruit jelly is delicious, decorative and most appropriate for serving at a Thanksgiving dinner, when "The kindly fruits of the earth" are among the benefits for which thanks are given.

A Thanksgiving dinner without pumpkin in some form or other would be a heresy indeed, but in place of the usual pie try serving tarts, which are more acceptable to most appetites at the end of a heavy dinner. Make tart forms by any preferred pastry recipe, then fill with the following mixture: One and one-half cupfuls of pumpkin that has been steamed until soft, a cupful of milk, half a cupful of cream brought to the boiling point, two well beaten eggs, two heaping tablespoonfuls of granulated sugar, two tablespoonsful of molasses, a teaspoonful of powdered cinnamon, a pinch of cloves and a shake of salt; mix well, then fill the tart forms and bake until firm. Beat the white of an egg to a stiff meringue, flavor with a few drops of lemon juice and a teaspoonful of sugar and pile a little on the top of each tart, then return to the oven for a minute to slightly brown. Serve cold.

Chrysanthemums are the Thanksgiving flower, but if any other kind is used for decorating it should be odorless. The fruit forming the centerpiece should be distributed to the guests by the hostess when the coffee is served, so the arrangement should be made with especial reference to this, that the bared receptacle may still be sightly.

In setting the table the salted nuts, celery and olives will be placed before the guests assemble and removed with the salad plates. Frequently too, the oysters are placed before the guests appear. The other courses are served in the order in which they are named on the menu.

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"*The dwelling a man builds, reveals his personality, and through its halls and porticos runs the story of his life.*"

Now if the problem be given proper consideration, it means *time* and *time* is money. We would be speedily overwhelmed with requests if this were a *free* offer, consequently it is not free. No signed contract is asked for. We propose to make our work so pleasing and satisfactory as to demonstrate beyond a question that the *best* is certainly the *cheapest* for you. The fact that *houses* built from our designs *sell* advantageously when built proves they are *practical* and *desirable*. *This is an important matter should you wish to dispose of your property.*

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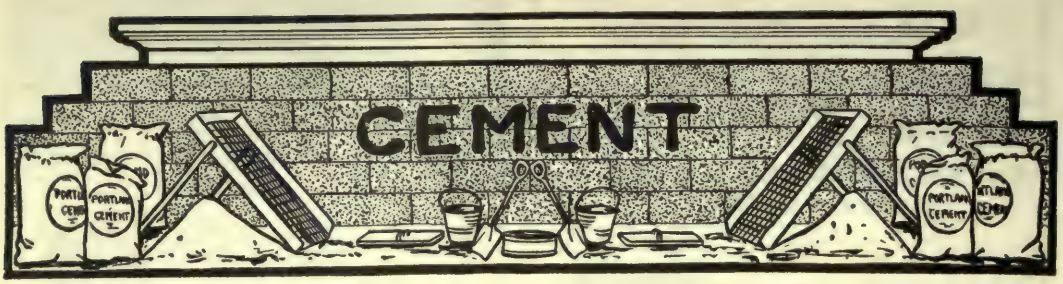
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Cement Products Exhibition.

THE Cement Products Exhibition Co., 72 West Adams St., Chicago, has assured the prospective exhibitors at the New York Cement Show that the sale of Madison Square Garden will not affect the holding of the New York exhibition in this building. While most of the reports which have been circulated during the last three years that Madison Square Garden was to be demolished seem to be untrue, it is a fact that a New York syndicate has recently arranged to purchase the building with the intention of erecting a big office building in its place. The contract for the purchase of the property, however, will not become operative until about March 1, 1912, which is several weeks after the dates set for the New York exhibition.

The coming show will be the last time the cement gathering will be held in the celebrated old structure on Madison Avenue and 27th Street.

Booklets for Distribution. Free.

Universal Portland Cement Co.

Portland Cement Sidewalk Construction. By C. W. Boynton.

Cement Drain Tile. By C. W. Boynton.

Concrete Pavements: Their Cost and Construction, with Specifications. By I. H. Chubb.

Standard Specifications and Uniform Methods of Testing and Analysis for Portland Cement. American Society for Testing Materials.

"Farm Cement News." (Published periodically by this company.)

Association Bulletins.

No. 1—"Concrete Building Blocks." By S. B. Newberry.

No. 10—"The Decoration of Concrete with Colored Clays." By H. C. Mercer.

No. 12—"The Progress and Logical Design of Reinforced Concrete." By Ross F. Tucker.

No. 13.—"Forms of Concrete Construction." By Sanford E. Thompson.

No. 18—"Reinforced Concrete Chimneys." By Sanford E. Thompson.

No. 19—"The Use of Cement in Sewer Pipe and Drain Tile Construction."

No. 20.—"Making and Placing Concrete by Hand." By Percy H. Wilson and Clifford W. Gaylord.

No. 21—"Concrete Silos." By Percy H. Wilson and Clifford W. Gaylord.

No. 22—"Cement Stucco."

No. 23—"Concrete Tanks."

No. 25—"Reinforced Concrete Poles." By R. D. Coombs and C. L. Slocum.

Write to the nearest office of the company; Chicago, Pittsburg or Minneapolis.

Waterproof Coatings for Appearance and Utility.

Where there is any possibility of dampness it is economy to use a good waterproofing material during construction rather than to attempt corrective measures afterwards.

An attractive booklet of the Trussed Concrete Steel Co., Detroit, Mich., illustrates their products in various phases of waterproofing problems, both exterior and interior. Special preparations are made for each case, either upon the surface, above or below ground. Color effects are produced for stucco and where the problem must be treated from within their product is said to solve it without resorting to furring upon the wall. This alone should more than pay for the material used. Cement floors are treated to prevent dusting and their waterproof felt will be of service in certain locations as described.



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PROPERTY owners often write us to know if we can supply Asbestos "Century" Shingles for some special style or kind of building.

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Our assortment of shapes is universal.

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Asbestos "Century" Shingles are in use today on practically every kind of building occupied by civilized man.

You will find them on residences of all types—from the cottage and bungalow up to the most costly mansions of America and Europe.

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You will find them in the temperate zone, in the tropics, near the Arctic Circle—impervious to any climatic condition and immune from fire risk.

Go to your responsible roofer and ask him to show you the *shapes* of Asbestos "Century" Shingles—the *sizes*—and the *three colors:* Newport Gray (silver gray), Slate (blue black) and Indian Red. Or write us. Send for Booklet "Reinforced 1911." It will settle your roof problems to your great satisfaction.

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Brick Versus Stone.

It has been practically decided that good brick is superior to stone as a building material. Almost any brick, if properly laid, is fit for use in a building, but it is never safe to assume that a brick is enduring and suitable for building operations unless its composition is thoroughly known. The worst factor which must be guarded against is the presence of salts of magnesia. It is only a question of time when bricks in which these salts are present in any appreciable quantity will be injuriously influenced by the weather, and there have been cases where bricks fresh from the kiln, and giving every apparent evidence of being of the best quality, have become shattered and disintegrated by the combined effect of moisture, frost, and the chemical action of the magnesia, so that a knife could be thrust into them with very little effort.

"Fortunately," says Carpentry and Building, "there is much good clay in this country, and so many thoroughly reliable brick manufacturers, that there is really no excuse for the production of bad bricks, or for their use, but any brick is not necessarily a good brick, and as much care and intelligent discretion must be used in the employment of this material as in connection with any building medium. There is a prevailing conception among builders that granite is one of the most enduring of stones, but, as a matter of fact, most granite would be outlived by a thoroughly first quality of hard-burned brick. A pure syenite, free from iron or mica, constitutes the most enduring of granite. A granite quarry may have good stone in some portions of the deposit and may be worthless in other portions. As a general rule, it is not safe to use granite for building unless the architect knows fully its composition and the part of the quarry from which it was taken. Sandstone is really a bad building material. The cementing material in sandstone has a very slight value, and it is probably the poorest material extensively used by builders, so far as resisting the action of frost is concerned, while the presence of iron constitutes an almost fatal defect."

Concrete Blocks for the Sage Homes.

The magnitude with which operations are to be carried on in Forest Hills, Queensborough, N. Y., by the Sage Foundation Homes Company, through which Mrs. Russell Sage expects to provide modern homes for working men at a moderate cost, is shown in plans which have been filed with the Building Department of Queens, for a concrete block factory to be erected on the property. This factory, says Concrete Age, will turn out the concrete blocks with which many of the homes will be constructed.

The plans for the building were drawn by Mr. Grosvenor Atterbury, of No. 20 West Forty-third street, Manhattan. The structure will cost about $10,000. From the time the raw material for the blocks is brought into the factory until the finished product is turned out, no hands will touch it, for everything will be done by machinery.

Railroad cars carrying the material will go right into the building, where their loads will be dumped into big chutes, to be carried to mixers and there automatically combined. The finished blocks will be turned out from one end of the press on to flat cars, which will be run out into the sunshine and left to dry. Then they will be carried direct to the place where they are to be used by the builders.

WIRE SACK TIES

STEP in the right direction is being made in the cement industry by the substitution of wire for string in tying sacks. There have always been objections to the use of string. The wire ties are applied by mechanical means, which insures that every sack will be well and uniformly tied. A wire tie can be made tighter than a string tie, which eliminates the trouble caused by ties slipping off and allowing the contents of the sack to spill. The wire tie may be loosened quickly and easily by giving two or three turns of the wire in untwisting it.

Another advantage of the wire tie is that there is little or no objection to the presence of these pieces of iron in the concrete, where the presence of pieces of twine in small reinforced concrete work might be quite objectionable.

Avoid Cracks in Your Wall

They result from plastering on wood lath, which absorb moisture and swell when the plaster goes on and afterwards contract, pulling away from the plaster. Your wall is loose—liable to crack at any time. It is also inflammable—a wood-lined flue back of the wall.

By Using Sackett Plaster Board

instead of wood lath you get fire-proof and sound-proof walls and ceilings that will outlast the house. Keeps out the cold and the heat—makes the building comfortable and sanitary. SACKETT is composed of alternate layers of Calcined Gypsum and strong fibrous felt, cut into sheets 32x36 inches, about as thick as wood lath. Nailed direct to studding, furring or joists and plastered over. Forms a firm, even surface for the plaster coat—absolutely cannot swell, contract or buckle. If U. S. Gypsum Plaster is used it fuses with SACKETT Plaster Board into a Gypsum monolith—as solid as rock—everlasting.

Do not spoil a good house with poor walls. Build them with SACKETT Plaster Board and U. S. Gypsum Plaster. These materials will give you walls of unequalled quality and will save you a lifetime of repairs. Write for Booklet "K"—yours without obligation.

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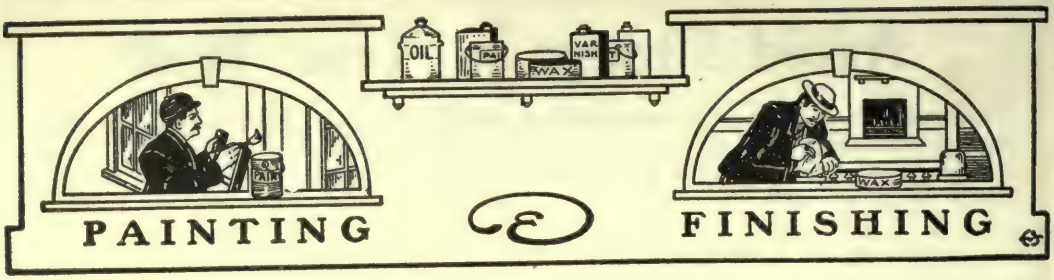
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Making Enamel Paint Work Easy.

A FEW drops of glycerine to the pot of enamel paint will make the paint work easier. A small quantity of grain alcohol is sometimes used to effect the same purpose. Benzine also is excellent.

Curing Dampness in Walls.

A correspondent asks if there is any way to effect a cure for a damp cellar wall and floor. Ground saturated with water and walls and floor cemented, still the water comes through, and even a cellar drain fails to keep the place dry. It would appear that cement ought to keep water back from entering the cellar. We have only two suggestions to make, namely, that the ground outside be well drained by drain pipes, to carry away the water, and the walls inside be treated as follows:

Dissolve ¾ of a pound of Castile soap in one gallon of hot water, and ½ of a pound of pulverized alum in four gallons of hot water; allow to cool. Then, on a dry day, using a wide brush, apply a coat of the soap solution to the wall, being careful to avoid frothing. Be sure to cover every part of the surface. Let this stand 24 hours, to dry. Then apply a coat of the alum solution, with another wide brush, being sure to cover every part of the surface. You will find it difficult to get the alum water on as it does not take easily to the soapy coating, but by hard rubbing it can be done. Let this stand 24 hours, then apply a coat of the soap solution, which let dry 24 hours. Then another application of the alum size, after which the operation is done. This was used to prevent water from seeping through the walls of a viaduct in New York, and it is said to have done this perfectly.

Dampness is the chief enemy of mankind. Where there is dampness there is decay, where there is decay, there is disease, where there is disease there is death. Eliminate dampness, says G. W. Kirwin in Waterproofing, and fully one-half of the ills that flesh is heir to disappear. Those who have or are told that they have the germs of disease go to sections of the country where there is little or no rain, and water is at a premium, while low-lying, ill-drained, swampy regions are the abodes of fever, ague, rheumatism, and consumption.

Foul odors in houses that have been kept closed for a time are inevitably due to dampness. The odor is not dampness, but the evidence of dampness, and the most common place for a dampness to accumulate is in cellars and basements.

Cheap Dipping Paint for Iron.

Formula:

Coal tar, gallons	15
Rosin, ounces	12
Lamp black, ounces	24
Tallow, pounds	3
Fresh slackened and finely sifted lime, pounds	15

Melt the rosin and tallow separately, mix, then add the coal tar; next break up the lampblack in benzine to a thick paste, and stir into it a pint of boiled oil; mix this with the lime and coal tar mixture while hot. If to be used cold, thin the tar with turpentine or benzine until thin enough. In either case add sufficient driers to dry it hard.

How to Make Casein Cold Water Paint.

Here are some formulas that are said to be very good: For interior use—Ten pounds of casein, pure; 1½ pounds of soda ash, 58 per cent; 88½ pounds of plaster of paris or whiting. For exterior use—Nine pounds of pure casein, 4 pounds of pulverized air-slaked lime, ¾ pounds of finely pulverized silica, and 86¼ pounds of plaster of paris or whiting.



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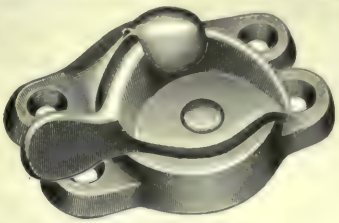
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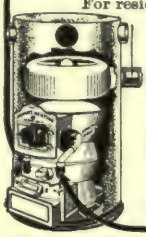
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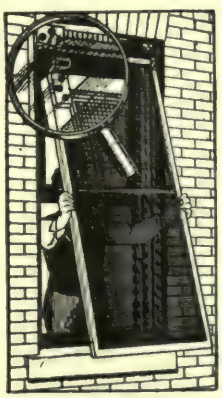
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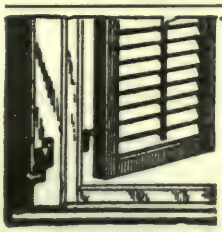
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The trouble with these cold water paints for exterior use is that they will not stand up under the weather, but will decay and go to pieces very soon. The casein is a binder, of course, and that is its only mission in the paint, but it is not sufficient to keep the paint together. I doubt if it is as good as buttermilk or skim milk as a binder for exterior water paint. Certainly plain whitewash will outlast any such milk paint. And casein is simply the curdy part of the milk. I have tried this casein cold water paint on exteriors enough to want no more of it. In fact, I do not think manufacturers push such paint now. It has gone with the paint spraying machine.

The Use of Talc in Paint.

Talc is used to some extent in mixed paint, and might possibly be more largely used in this way than it is, and with satisfactory results. It is an interesting mineral, in composition being identical with steatite, or soapstone, as it is commonly called, but talc has a more crystalline structure than steatite. Chemical experts do not seem to agree as to the exact constitutional formula that should be applied to it, but from an average analysis we may conclude that the mineral is an acid metasilicate, with the empirical formula $H_2Mg_3(SiO_3)_4$. Talc as a pigment is quite permanent, and certainly makes a good filler or extender in certain paints. When finely ground and slightly emulsified it forms the base of some very good paints.

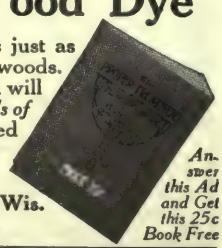
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Celluloid Gold Bronze.

The trouble with inexpensive varnish gold paints is that in time the constituents act upon the bronze and cause it to become black. This will not occur when celluloid varnish is used. This varnish is made by digesting one ounce of finely shredded transparent celluloid in sufficient acetone to dissolve it, and then adding amyl acetate to make twenty ounces. Be careful to have no fire in the vicinity. From one to four ounces of flake bronze is to be used in place of gold.

A cheaper gold or silver paint may be made by using an inexpensive varnish composed of gutta percha, gum damar, or some other varnish gum, dissolved in benzine or in a mixture of benzol and benzine. But, as previously stated, this will in time blacken the bronze.

Effect of Paint on Radiators.

What is the effect of paint on the transmission of heat from radiators? This question interests painters, as a bit of information, and affects householders. A radiator company answers the question thusly: From experiments we found that the transmission of heat was almost the same with 14 coats of paint applied to the radiator as with two coats, and that the effect apparently depended upon the last coat applied, while the intermediate coats through which the heat was transmitted had very little effect upon the heat transmission. That is, the heating or radiating effect of the radiator was more affected by the condition of the surface than by the material through which the heat was conducted. The various coats underneath the last coat made very little difference in the heat transmission. Different vehicles for carrying the pigment give different results. For instance, copper bronze and shellac seem to be better than copper bronze and linseed oil.

Tests with white lead paints show that the transmission is practically the same as with unpainted radiators, and the same may be said of zinc paints, light green and white. Finally, the tests appear to show that the poorest coverings are the copper and aluminum bronzes. The best materials tried were the enamels; white lead paints and zinc paints give only slightly less transmission than enamel.



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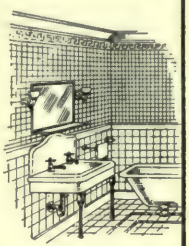
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The Care Of The Furnace.

By H. C. Bennett.

NO hard and fast rules can be laid down for the care of every furnace. Furnaces themselves differ, and chimney-flues vary as to draft. The quality of coal is a third factor of great variance, and the size of the coal is a fourth. Allowing for these differences and assuming that there is an average draft, a fairly good quality of coal and that it is of the proper size, the following rules will insure good results.

Clean all pipes and the chimney every fall. If soft, or semi-soft coal is burned, the pipes may need cleaning more frequently. When anthracite coal is used an annual cleaning is sufficient.

See that the fire has a good draft. There is an almost universal idea that a partial draft reduces consumption of coal. This is true, but it also decreases production of heat so that nothing is gained. Unless the draft is unusually strong, as it is in exposed situations in the country, it may be left fully open and the rapidity of consumption regulated by the door below the grate.

The half-draft is particularly bad in damp, muggy weather. To burn fuel requires a certain amount of oxygen, otherwise it smoulders, and forms poisonous gases, which pass off unburned. Coal gas in a house means a defective draft. So that even in exposed situations it is better to open the draft wide in damp weather.

The occupant of a new house, with an unused chimney, will have need of all the draft he can create. New chimneys never draw well. In building fires in furnaces in new houses all cellar windows should be left open, to insure as good a current of air as possible.

To build a new fire, clean the grate, remove all ashes from beneath, open drafts wide and see that the kindling is well started before adding coal. The poorer the coal the more slowly it must be added. When the grate shows a bed of red coals check drafts.

To insure an even, good fire, see that the ash-pan is cleaned out daily. Never allow ashes to accumulate. Keep a good bed of coals. The best rule is to keep the firebox full constantly. Add coal from two to four times daily, according to the rapidity of consumption. Add very little coal to a low fire. Avoid shaking a low fire severely. Open drafts and defer shaking until the new coal has caught.

The fire desired in moderate weather is one which gives a slow, steady, mild heat. To get this, keep drafts open but allow an ash deposit to form upon the grate. According to the furnace, this may vary from two to four inches. Add thin layers of coal, but keep the bed deep. Avoid shaking down except at night, and then allow a layer of ashes to remain upon the grate.

In crisp, severely cold weather, with high winds, when a maximum heat is desired, keep live coals upon the grate, add coal in large quantities and when burning well check draft below grate.

To keep the house warm overnight let the fire be attended as late as possible. Shake down the grate, so that the grate shows a bed of live coals. Then open the drafts, fill the firebox with coal and shut the door. Then remove all ashes from the ash pan, and during this time the gases will burn off and the lower door of the firebox may be left open on a crack. Enough coal should be added to burn all night and start the morning fire without additional filling. A fire cared for in this manner late at night will keep a house evenly heated in the coldest morning hours, and avoid forcing a hasty fire in the morning.



Edward L. Ryerson Residence, Lake Forest, Ill.—Howard Shaw, Archt.—Neponset Building Paper.

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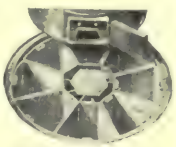


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In the morning open the lower door, shake the grate gently and allow the fire to burn up brightly before giving a hard shaking and adding fresh coal.

Never poke the fire from above. If a clinker refuses to pass the grate, use the poker from below. Poking from above tends to mass the coals and thus prevent the free passage of air. Keep the water pocket full.

Where quick fires are frequently needed, as is the case in families where there are occasions when the house is left empty, keep a load of crushed coke, egg size, and add before adding coal. Coke burns rapidly and gives an intense heat.

There are one or two furnace tricks which you may use if you are a good fireman, but which it is well to beware of if you are a poor one. One is to make a new fire over the remains of an old one without dumping the grate. To do this, first give the grate a thorough shaking. Then remove all ashes. Pile excelsior and wood very lightly upon the cinders in the firebed, leaving plenty of space between the sticks.

Pile the wood high. Open all drafts, light, and shut the firebox. When the wood is aflame, add coal in very small quantities. If carefully made a fire like this will burn the cinders to the grate.

A second trick lies in using the cinders obtained from sifted ashes. These may be thrown into a corner of the coal bin and used upon a very hot fire, half cinders, half coal.

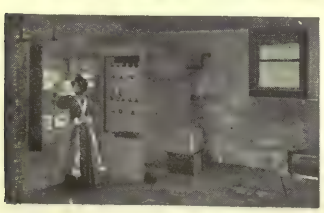
Inexperienced furnace tenders usually put out the fire by using cinders, then grow disgusted and throw out the ashes without sifting. The foregoing plan never fails.

The Cheer of the Open Fireplace.

The commodious old-fashioned fireplace is a great favorite with home lovers, and it always will be. If properly constructed it will not only throw out a great deal of heat, but it will also provide natural ventilation. An open fireplace, it is said, will extract about 250 feet of cubic air per minute, which will provide satisfactory ventilation for half a dozen persons. But the main reason for the popularity of the fireplace is based on sentimental grounds. It was in front of a log fire, says Shoppels, that many of us first heard of the fairies and their wonderful pranks, and it was there that the family gathered in the evening to welcome callers and display their hospitality under the cheering influence of the blazing logs. We remember these things, and the fireplace brings to our minds scenes of the past which make us younger in the thought of them, and so the fireplace becomes a sort of rejuvenator in the cold winter evenings as we gather around it to discuss the news of the day or indulge in harmless gossip.

The open fireplace is greatly favored in England where, no matter how elaborate the heating system of a house may be, provision is always made for at least one large fireplace, where the lord of the manor may enjoy a quiet smoke and a nap, or may gather with his friends and neighbors to watch the snapping flames of the cheerful fire in the good old cheerful way. In this country it has become the fashion, especially in the larger residences, to provide a fireplace in the living room, independently of other heating facilities. Those who gather around these hearthstones assert that they make wonderfully for cheerfulness and family fellowship. With the coming of winter the fireplace will assume its rightful prerogatives and thousands will see pictures in the blazing logs and live again the days of their youth, inspired by the crackling wood or coal, as it vanishes to ashes in the ruddy glare.

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The standard thicknesses are 13-16-inch and ⅜-inch. There are also special thicknesses such as ⅝-inch, 7-16-inch, besides the parquetry flooring.

Color Training Now Taught in the Chicago Public Schools.

"Color Training" is now part of the practical training taught in the Chicago public schools, and Miss Lucy S. Silke, one of the instructors, has written very interestingly on the subject for the weekly Industrial Edition of the St. Louis Star. The comprehensive scope of her article, and of the subject as taught in the Chicago schools is indicated in this extract:

"Color is the most wonderful subject in the world. It is wonderful in its nature, wonderful in its effect upon us, whether trained or untrained, and wonderful in the part it plays in our mental, moral and spiritual development. We love it, whether we are conscious of the fact or not, as we love life and movement and human companionship. It is life and movement and human companionship. The hunger for it is deeply rooted in every heart. By means of it all our experiences are vivified. It leads us gently through our joys to our duties.

"Every substance has its characteristic color, and this characteristic color is an attribute as inseparable from it as its form or its specific gravity. It is in color that every variety of matter makes its individual response to the life-giving rays of the sun, some of which it absorbs and some gives forth again, according to its quality, and substance. The word "colorless"—empty of expression, barren of inspiration. In music, in literature, in life, as well as in the objects which surround us, form may interest, but color attracts.

"It is not, however, to the subject of color as such, but to the practical questions connected with color training in the schools that I invite your attention; not to the science of teaching color, which is

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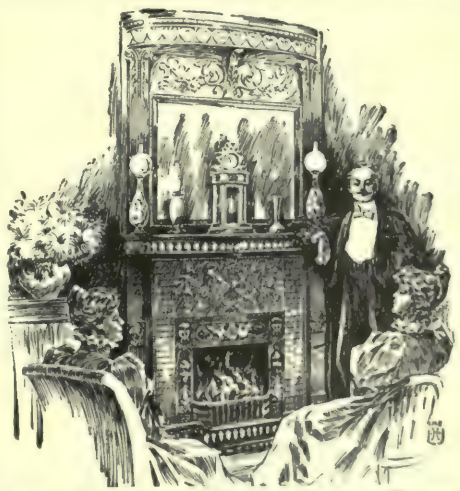
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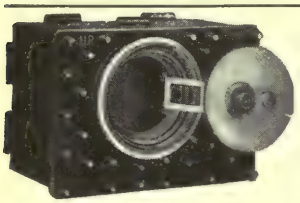
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only in its beginning and in which there are still many conflicting and confusing creeds. It is with ways and means of adapting ourselves, who are full of notions and theories, to those fresh, young minds in our care, who grow according to inner laws more wisely planned than most of ours, that we are after all most deeply concerned. Almost all of us are either teaching color or directly interested in its being taught. It is a matter for profound congratulation that some form of color expression, of color training, is now recognized as an important factor in education in the common schools, the schools which are to educate the whole people and make them one in mutual understanding and sympathy. One of the first fruits of the wide-spread interest in Froebel and his teachings was the introduction of color. It is true that it came in as a concession to the need for joy in a child's school life; nevertheless, to omit it now is to be behind the times—behind the industrial world, behind the magazines, behind even the Sunday supplement. This means, if it means anything, that we are getting down to bedrock; that we are building deeper than heretofore, because we understand better where the foundations must be laid to be secure. To take up the study of color seriously, systematically and understandingly, is to begin to make a vital force in education out of what is a vital force in life.

"It is not, therefore, necessary to make any plea for color or to advocate its use to any greater extent than is now general. I wish merely to present some of the fundamental aspects of color study which it seems to me the very charm of the subject often causes us to ignore. First, as to the technique of color from the pupil's point of view; second, as to courses of study in color, and third, as to methods and materials for the teaching of color."

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KEITH'S MAGAZINE ON HOME-BUILDING, Minneapolis, Minn.

KEITH'S MAGAZINE

ON HOME BUILDING

WITH WHICH IS CONSOLIDATED

THE JOURNAL OF MODERN CONSTRUCTION
IDEAL HOMES MAGAZINE

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Christmas Greens

KEITH'S MAGAZINE

VOL. XXVI DECEMBER, 1911 No. 6



A RIVERSIDE HOME WITH ARCHED OPENINGS OF VERANDA AND PATIO
—Lester A. Moore, Architect

Interesting Examples of Cement Architecture

By EDITH EVERETT, Santa Ana, Cal.

THERE are four interesting views—an artist's home, delightful and perfectly fitted, the same artist's work shop, clever too, and complete in every detail, a roomy residence with broad verandas twined with vines, a hillside cottage built to fit its sloping location. These four structures are made of cement, and each shows how Californians believe in adapting houses to individual needs and fitting them to the surroundings in which they are built.

The large house shown is the property of C. H. Watson, of Riverside. This residence stands well back from the front street in the centre of a close clipped lawn and is shaded by huge pepper trees. The broad porch is covered with climb-

ing vines and the red tile roof gives the bright color touch needed; for the house is cream-colored cement and plaster. The foundation is granite.

The porch which encircles the house on two sides is ten feet in width. Above, in the centre of the front, is a delightful sheltered balcony. At the back of the house is an open "patio" or court. Long French windows open onto the "patio."

Within the house are several features of interest. The large reception hall has a heavily beamed ceiling. The library and dining room have paneled wainscoting and beamed ceiling. All three rooms are furnished in natural California white pine. The large living room is finished in mahogany.

But the thing particularly noticed in Mr. Watson's home is the air of comfort —everywhere details for comfort. There are four fireplaces—one in the living room, one in the library and two upstairs in the bedrooms. Each fireplace has a tiled mantel.

This complete ten-roomed house cost only about ten thousand dollars. Well built and comfortable, with all modern improvements, it is an ornament to Riverside. It is adapted to its surroundings from "airy patio" to broad veranda, and each detail fits in with climate and with needs.

The delightful home of M. Franz Bischoff is located in South Pasadena. The artist owner has surrounded himself with every convenience. The charming little bungalow set in its field of daisies, is out of the ordinary enough to attract the attention of the casual passer-by. Made of waterproof cement on a frame construction, the light plaster is well set off by the dark redwood trimmings. A broad walk leads from the street to the entrance, which is at the side. The house faces east, so that the morning sun pours down on the open porch. The porch is a California specialty—dark redwood beams,—a cement floor and balustrade form the sun porch, adjoining this is



THE CHARMING BUNGALOW SET IN A FIELD OF DAISIES—AN ARTIST'S HOME



THE UNIQUE AND INTERESTING STUDIO

the covered veranda. The cover is an extension of the roof, or rather the roof does not extend over the sun porch. Here, on the one long porch, is light and shade to fit the cool or warm days, to please all.

The front door opens from the porch directly into the large living room. This is a baronial room with a high ceiling. It is finished in the natural colored California redwood, and its owner has decorated the walls and ceiling with mural paintings. So artistic is this large high ceiled room that it reminds one of the great castles of the Old World, only this room is so thoroughly comfortable in every detail, that it lacks the cold appearance of many castle rooms. At the west side is a large brick fireplace—the necessity of a complete California house.

The dining room has a north and an east front. Its three united windows facing the east, show in the picture. From an open latticed porch at the back of the house, a pergola made of redwood leads to the studio beyond. The pretty seven-roomed bungalow was built by a Los Angeles architect at a cost of about $4,000.

But interesting as the house is, and perfectly adapted to its surroundings, the studio is so well fitted to its purpose that it is certainly a triumph. As the picture shows, it is no ordinary work shop, but a studio unique in every respect. It is built of the same material as the house. The heavy redwood door of the main entrance leads directly into the gallery; for the studio consists of two rooms.

The gallery has a suspended ceiling. The odd windows in the roof admit the light in such a way that the pictures can be shown to best advantage—the side light and suspended ceiling prevent a glare.

The studio proper has long narrow windows—light is thus admitted from three sides. The basement of this handy workshop is well lighted and is fitted up with a china kiln. Here, too, the

decorator's colors are made. This clever bungalow and well arranged studio, surrounded by beautiful flowers and broad lawn, with trees for a background,—is an ideal artist's home, and illustrates well how Californians adapt their houses to their needs and fit them to surroundings.

The fourth structure shows in the fullest sense what is meant by adapting a house to its location. For certainly the

The clever cottage cost only $3,500, and has seven large rooms. The living room opens onto the front porch. The dining room is just back of that. The den is at the corner where the back window is.

But the great beauty and delight of this home is the porches. From the porches there are charming views. The back porch, not shown in the picture—



A LOS ANGELES HILLSIDE COTTAGE OF COBBLES AND PLASTER

residence of Frank B. Sturge, on North Gates street in Los Angeles, shows the possibilities of a hillside cottage.

In front of the house a flight of steps leads up the hill. The foundation and chimney are of cobblestone, the house is cement plaster on a frame construction. The corner of the hill is used to its best advantage. In front the house is one story while the back part farther down the hill is two stories.

commands a view of the city of Los Angeles that is unsurpassed.

These three houses, each built of cement and plaster on a wood foundation —each built in a different city, and each so well adapted to needs and surroundings, were all constructed by the same architect—Lester A. Moore, of Los Angeles, and as he himself says, are just samples of the cement house as adapted to locality and need.



A Christmas Window Garden

By J. M. ANGELL

FOR amateur gardeners who enjoy experimenting with anything out of the ordinary, an indoor water garden is to be recommended. This suggestion need not raise visions of sun parlors and aquariums, for something far more simple is intended, a water garden that need not occupy more space than can be given in one sunny window.

Nearly every window garden contains hyacinths growing in water and, perhaps Chinese lilies also, but not every flower lover knows that many other, and more beautiful, bulbs may be raised in the same way.

Instructions for a successful water garden are few and easily given. If single bulbs are to be raised use a patent hyacinth glass for each. This has an inner section that can be removed without bruising the roots when changing the water. Experienced water-gardeners will not be satisfied with single specimens, because the flowers are more beautiful in masses, but when a half dozen, or perhaps as many as a dozen bulbs, are to be used in a dish, we should recommend the following varieties: Von Sion, Paper White, Grand Monarch, Chinese Lily, and all the hyacinths mentioned. For a group of bulbs, in a wide, shallow dish it will, of course, be necessary to provide pebbles and a little sand, in order to place them firmly on the same level. Rain water is recommended as being more suitable than hard water. It should be poured in until it touches the base of each bulb and changed every few days by flooding the dish. As a precaution, to keep the water pure we used a lump or two of charcoal in each receptacle and water that had been boiled, but this is not necessary in all cases.

The best way to "lay out" the water garden is to collect all dishes and vases suitable for the purpose and have ready all materials and utensils, so that when the bulbs arrive they may be fitted to the various receptacles at once, using them to the best advantage, according to size and shape. They may be set away dry in the same dark, cool, mouse-proof closet that is used to start the bulbs into root growth, and every week a few should be brought out to have the water added. In this way a long succession of bloom may be kept up. The later they are started the quicker they will come into bloom, so that some allowance should be made for this fact. It is not wise to keep any bulb till it shrivels, for the vitality will be impaired. Some of our own were kept till December, but, as a general rule, the sooner they start the better will be the results.

The essential trio now are heat, moisture, and food, with all the sunshine the season affords. Heat should be applied from the bottom, two sets of bricks, those under the pot alternating every morning and night with freshly heated ones from the range, serve admirably for keeping the roots warm. Use warm water in abundance. Apply a liquid plant food



A CHRISTMAS WINDOW GARDEN

once a week, for the calla is a gross feeder. Fertilizer from the cow stable is richest, but prone to breed the black flies, which produce white worms. Liquid ammonia, one teaspoonful in a quart of water, is preferable for this reason, and a satisfactory plant food.

and stir the soil of your house plants as regularly as you stir that of the garden plant. With no weeds to spur us on, we are apt to forget that the earth must be kept loose and friable to admit air.

Pinch the terminal buds from the geraniums when they have reached the



RHODODENDRON MAY BE FORCED TO WINTER BLOOM

If the red spider attacks the leaves, spray with cold water. The scale may be routed by washing with soapsuds, rinsing thoroughly.

Here are some points in window gardening that it is well to keep in mind:

Keep a nail or an old fork at hand, proper size and induce them to become thick and robust in growth.

Always keep all decaying leaves and flowers closely cropped. They are a useless drain upon the plant. Never drop them upon the surface of the soil. They are unsightly.

Some Fireplaces and Mantelpieces

By CHARLES ALMA BYERS

(Photographs by the Author and Lenwood Abbott)



MANTEL OF GREY PRESSED BRICK WITH WROUGHT IRON FIXTURES

NO OTHER feature so effectively adds to the cheer and coziness of a home as does the fireplace. An artistically-designed and well-built fireplace constitutes a luxury that no home, in fact, should be without. Since invention has given us many other means of producing heat for the winter months, it cannot be termed a necessity, but, nevertheless, its demands for recognition as a desirable feature are such that no home builder can well afford to ignore them. Despite the fact that the well appointed home of today may possess its steam or furnace heating apparatus, we miss much of the pleasure of home life unless there be a glowing fire in an open fireplace before which we may "toast our toes," as the saying is, the while we read, or talk over the events of the day, or merely build dream-castles out of the future.

Although its possibilities as a decorative feature should not be overlooked, the fireplace should be primarily designed for warmth giving. It should be so con-



A DAINTY INGLENOOK IN WHITEWOOD AND GREEN VELVET



UNUSUALLY FINE TREATMENT OF FIREPLACE AND BUFFET. WOODWORK OF OREGON PINE, STAINED AND WAXED

structed that it will maintain a cheering and glowing fire and give forth a reasonable amount of heat without the consumption of too much fuel. No matter how artistically it may be designed, the fireplace is made attractive and enjoyable principally by the glow and warmth and crackling of burning logs. A fireplace can scarcely be expected to furnish sufficient heat in mid-winter, but if it is properly constructed it should at least suffice to dispel the chill on autumn or spring evenings. In mid-winter, in northern states especially, it will be necessary to possess other means of heating, but the fireplace will then be appreciated ash a luxury to give the home an appearance of cheeriness.

As a decorative feature of the home, the well-designed fireplace offers innumerable possibilities, a few of which the accompanying photographs will help to ilustrate. To make it such a feature, the mantelpiece, of course, must receive studied attention. It should be selected or constructed so as to harmonize with the general character of the interior of the room. The fireplace deserves to be made a conspicuous feature, but it should not be made excessively decorative. If the general character of the room be picturesquely rough, the fireplace should be made correspondingly so, while if it be dignified, the design of the fireplace should likewise be simple and dignfied in appearance. A "misfit" fireplace is always anything but decorative.

The fireplace suggests coziness, and hence built-in cozy seats in close proximity are invariably desirable. Built-in bookcases at either one side or both of the fireplace can also often be made an admirable feature, especially in the library or den. Both of these arrangements are illustrated by the accompanying photographs.

A fireplace does not add very materially to the cost of a house, and the benefits and pleasures derived from it will always more than compensate for the expenditure. As a means of ventilation alone the feature is worth its cost and should be installed for that if for no other purpose.



Christmas Greens for Home Decorating

By WILLIAM S. RICE

WHAT would the Christmas season be without greens of some sort to decorate the home, and make it bright even though "the owl with all his feathers is o'cold?" There is nothing, I fancy, that adds so much cheer to this time-honored occasion as a branch of holly, with its bright, scarlet berries glowing warmly amongst the glossy, green, prickly foliage; or a cluster of mistletoe, with its white, waxen berries, suspended from the parlor chandelier, where sentimental lads and lassies may test its charms.

We have been accustomed for so many generations to associate Christmas with holly and mistletoe, that no Christmas wherever we celebrate it, seems like Christmas without them.

For this reason we must have holly with "lots of berries" on it, for nothing else is quite so satisfactory on this festal day. Aside from its legendary associations, it possesses charms that cannot be denied. It possesses such glossy, dark evergreen foliage, amidst which the scarlet berries are set like jewels, it is inexpensive, and furthermore it keeps bright a long time without water, although it retains its freshness much longer when its stems are placed in a vessel of water. It is unsurpassed for making wreaths and for informal decorations on mantels, chandeliers, walls and dinner tables; and no gift seems so like a Christmas gift without a spray of holly attached to it.

Of late years, sprays of a curious shrub known popularly as "desert holly" have appeared in the floral shops. This plant is altogether white, the leaves having the color and texture of white kid leather, with small inconspicuous berries interspersed with the foliage. The sprays of



AMERICAN MISLETOE

this shrub keep indefinitely, as there is nothing about the color to fade. It is a most curious and beautiful addition to the Christmas bouquet, and comes to us from the Colorado desert in Arizona.

There is not a more exhilarating pastime than to take a trip to the foothills of the Sierra Nevada mountains, late in November, to go berrying for the native Christmas berry (toyan), also commonly known as California holly berry.



DESERT HOLLY FROM ARIZONA

The sight that meets the eye causes every chromatic nerve of the artist to tingle, as one sees acres upon acres of the green hill slopes blazing with vivid scarlet. The splendid warm, green foliage, slightly prickly and suggestive of "real holly," serves only to heighten the intensity of the vivid coloring of the densely clustered berries.

The Oregon grape, in its native haunts in the Oregon forests, near Mt. Hood, where it flourishes in great abundance, is one of the handsomest low shrubs dotting the forest floor. The leaves bear a strong resemblance to holly, and seven or nine of them are arranged opposite each other on the stem. The margins of the leaves bristle with sharp spines, and although the mahonia is a great treat to the eye, the shrub is on the whole a very unpleasant thing to handle.

The vine, known as Southern smilax, grows abundantly in the woods of Alabama and neighboring states, and is a most desirable vine for festooning, informal draping and massing. Its dark, glossy, green leaves are similar in many respects to, but larger than, the house plant known as Boston smilax, which is really not smilax, but a member of the asparagus family.

The bittersweet vine is another handsome motif for decoration, with its vermillion red berries with orange caps. If gathered early, like the greenbrier, its leaves will add much to the appearance of the berries. It is usually found in the mountain pastures of New England and the Middle Atlantic states.

Everybody is familiar with "ground pine," or "crow foot ivy," "club moss" or lycopodium, as it is variously called. It inhabits low, moist woods, commonly pine woods, and is frequently found in companionship with laurel or trailing arbutus. It is useful for wreaths or for making long ropes or festoons. It is common in almost any pine swamp throughout the East. The state of Wisconsin annually produces about two hundred tons of this ground pine for Christmas greens.

Mistletoe is so well known to most readers that a description of its charms is not necessary here. However, a few facts concerning its peculiar habits of growth may not be inappropriate.

I was very much interested while spending my first winter in California, to see the many new, to my eastern eyes, Christmas greens in use in that state. Of course I was familiar with mistletoe, but only as I found it at the curbstone markets in Philadelphia. Its habits of growth were like a sealed book to my mind. It was, therefore, with much zest and anticipation that I accepted an invitation, one mild December day just before Christmas, to ride out into the suburbs of Stockton to see and gather the time-honored parasite in its native haunts. It grows plentifully upon the oaks about the city, and we secured several fine specimens of it by climbing the trees and snapping its brittle stems. Mistletoe without fruit is uninteresting so we were particular to select only branches with "lots of berries" to take home with us.

It is a good plan to gather autumn leaves and vines of all sorts with a view to their use in the holiday decorations. Whenever possible to do so, they should be gathered in large branches, and each leaf pressed on the back with a warm iron. A few crumbs of paraffin dropped on the leaf before it is ironed is more satisfactory in preserving the brilliancy of the colors. If paraffin is used it should be put on the upper side of the leaf and then ironed on the same side.

Wild woodbine, after the frosts have touched it, is one of the most beautiful vines, and lends itself to decorating as few other vines do. It should be gathered when the colors are brightest, and each leaf pressed as described in the foregoing. This may sound like an interminable task, but it really is not.

Whenever gathering Christmas greens, it is well to get them about a week before the holidays, and keep them in a cool cellar or shed until they are to be used. Holly, too, keeps brighter and fresher if kept in water for a few days before used.



Wall Board and Its Uses

By HOWARD HEPPES

DURING recent years there has been a remarkable development of this comparatively new building material which has come to be regarded with a good deal of favor among builders, as a convenient substitute under certain conditions, for lath and plaster. Wall boards have advanced beyond the experimental stage. The great problem has been to make a board that would not shrink or warp; that would not contract or expand to any appreciable extent under atmospheric changes and that would "stay put" once it had been applied to a wall. Constant experimenting has overcome these difficulties in the best of the wall boards now made and the house owner or builder can use this very convenient material with entire confidence as to results.

Wall boards have, as the French say, "arrived." They have a recognized place in the building material world; their remarkable adaptability is just beginning to be recognized by home builders and owners and they are coming to be regarded as a permanent building asset.

It is safe to say that there is not a new home built in which wall board cannot be used somewhere to advantage. There is not a garage or summer cottage, an office or a factory in which it will not add to the economy and efficiency of the builder's work. And in the houses that are already built, the opportunities for using it in repair work, in making partitions, in turning waste spaces into cozy rooms or closets, in building shelves, or making clothes chests, wardrobes, etc., are almost without number. The man who has tools and likes to use them will find wall board the most convenient and economical material that ever came to his hand.



AN UNSIGHTLY ATTIC CAN READILY AND INEXPENSIVELY BE TURNED INTO A BEDROOM OR PLAY ROOM FOR THE LITTLE FOLKS BY THE USE OF WALL BOARD



WALL BOARD MADE IN LONG SECTIONS CAN BE USED TO GOOD ADVANTAGE IN HALLS AND OTHER PLACES WHERE BROAD STRETCHES OF UNBROKEN WALL ARE DESIRED. THE SURFACE MAY BE TINTED OR COVERED WITH WALL PAPER OR BURLAP

A practical application of wall board is on an interior wall for summer cottages or bungalows. The board can be set between the studding but about three-quarters inch back from the stud face, so that the face of the studs forms the wood strip which divides the wall into panels. A hardwood paneled wall is obtained by using the wall board which comes ready finished in that effect and no other finish is required. The studding can be stained either to match the wall board or in a contrasting tone of soft dull green. Wide sheets can be used for the ceiling which can be painted a warm cream or a pale ecru, in harmony with the wall below.

Among the most practical and durable of the wall boards now on the market are the ones made in long sheets that reach from the floor to the ceiling and clear across the room overhead, thus eliminating all cross joints. It is an obvious fact that wall board made in various size sheets to fit walls of different heights, and ceilings of different widths, is the most suitable board to use. There are several makes of wall board on the markets which do not greatly differ in desirability. It goes without saying that a wall board which is water proofed against atmospheric moisture, and one that has the least contract and expansion, is the board which gives the best satisfaction. A wall board that is water proofed against atmospheric moisture, will render the home lined with it, free from dampness and make it clean, dry and sanitary.

A good composition wall board, made of the proper materials and properly applied, is one of the best nonconductors known of heat and cold and will keep a building lined with it, warm in winter and cool in summer, as a good wall board is non-porous and retains the heat in the building. It likewise repels heat from the outside in hot weather, thus keeping the building cool, without generating dampness.

Wall board is meeting with the general approval of home builders throughout the country because of its general utility. It is found very useful not only for lining the entire building, but is an exceedingly handy material for all kinds of repair work, lining attic rooms, closets,

stairways, basements, garages, and all outbuildings.

We have in mind an instance of this in a handsome house in Massachusetts where the plaster ceiling of the guest chamber had become seamed with unsightly cracks and partly broken away. The delicate decorations of the side walls were intact and as the owner desired to retain them, it was decided to experiment with wall board for renewing the ceiling. Accordingly, the wall board was laid over the ceiling as it was, without stripping off the plaster, in such a manner that long panels were formed by two-inch wood strips applied over the joining of the sections. The wood strips were painted ivory white and the wall board surface between, a pale apple green, carrying out the color scheme of the side wall decoration below. The result was wholly delightful and satisfactory, while eliminating the unpleasant features attending a new plaster ceiling.



IT IS A VERY SIMPLE THING TO MAKE THE LAUNDRY LIGHT, SANITARY AND ATTRACTIVE IF WALL BOARD IS USED

There are many advantages to be obtained by using wall board in nearly every class of building. It is very easy to apply, all the tools being required being a saw, a hammer, and a square. For this reason it appeals to the man who desires to do all or part of the work himself without the aid of skilled labor. Any man who can use a saw and a hammer can apply wall board by using ordinary care and obtain a very satisfactory job.

Wall board being nailed directly to the studding and ceiling joists does away with the litter and confusion incident to a lath and plaster job. And, as it is perfectly dry when applied, the home builder saves time in the completion of the building. One can go right ahead with the work without waiting for the walls to dry. As soon as the board is applied the building is ready for the finish and decoration. And, when one uses a board that is waterproofed against atmospheric moisture it naturally makes the building dryer and more sanitary.

If wall board is properly applied it will stay in good condition and last as long as the building stands.

Wall board is adaptable to nearly any

style or type of building. It is adaptable to any panel design or style of decoration. The better brands of wall board may be decorated in any manner desired. Can be painted, calsomined, papered or burlapped, the same as a plastered wall. The painting surface is far superior to a plastered wall. The wall board being much smoother and having less suction it does not require as much paint as the porous plaster.

In taking into consideration the cost of wall board as compared to other wall linings, the builder should not consider the initial expense of applying only, but should take into consideration, the lasting qualities of the different materials as well. When a good wall board is used, the first cost is the last cost and this factor of permanency and elimination of repairs, should be taken into account in comparing the cost, though usually, the initial cost is considerably less than other methods of wall treatment.



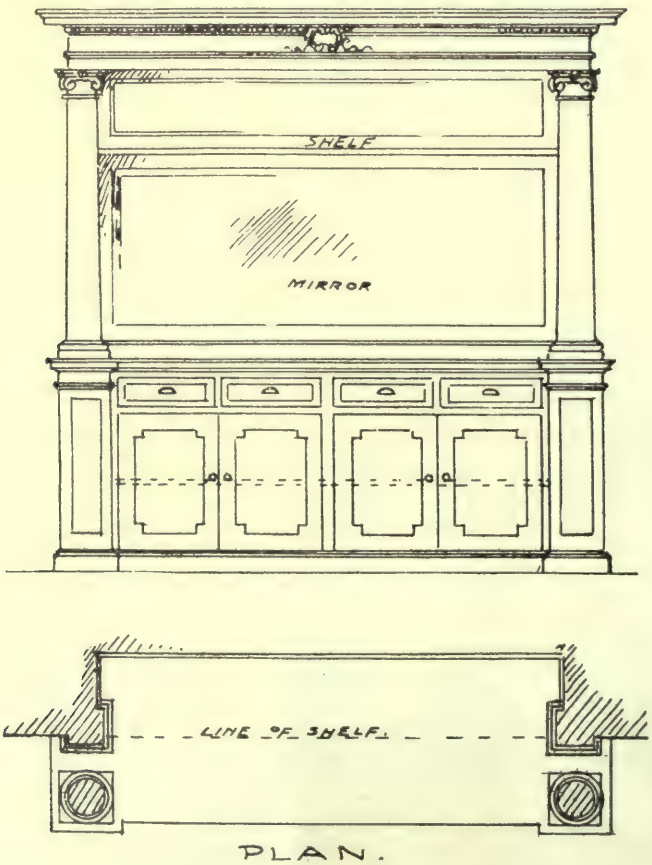
CEILING OF ARTIST'S DEN FINISHED WITH WALL BOARD

Construction Details of the Home

Built-In Sideboards

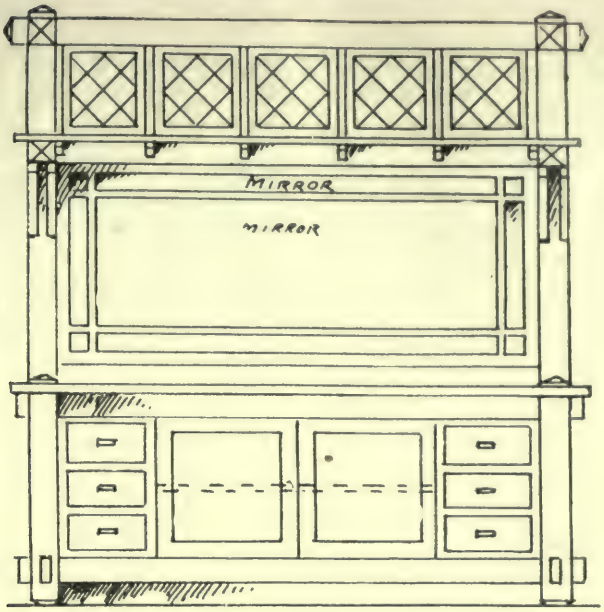
By ARTHUR C. CLAUSEN, Architect

THERE is a considerable difference of opinion as to the usefulness of sideboards. Some housekeepers consider them indispensable, while others consider them as a useless expensive ornament. There is much to argue on both sides of the question, and the opinions of various house wives are usually based upon their own personal experience rather than general information on the subject.

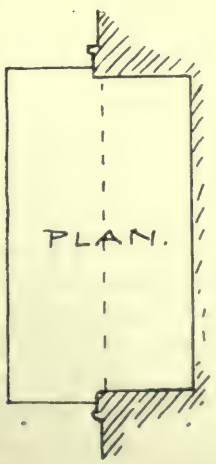


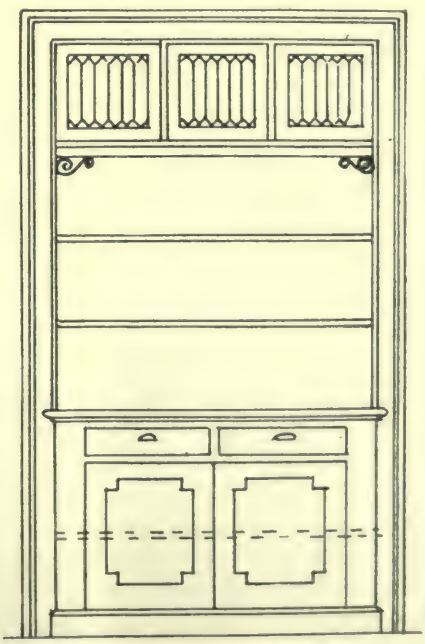
Many sideboards are mere ornaments, having very little practical use, and costing considerable. Sideboards, however, can be made both practical and ornamental. To make them mere ornaments, or mere cupboards to use as a china closet, is an easy matter, but to combine both beauty and usefulness, presents many difficult problems.

In the designing of a sideboard, the very first consideration should be the style of the room. If it is a simple home, having a simple stairway and fireplace,



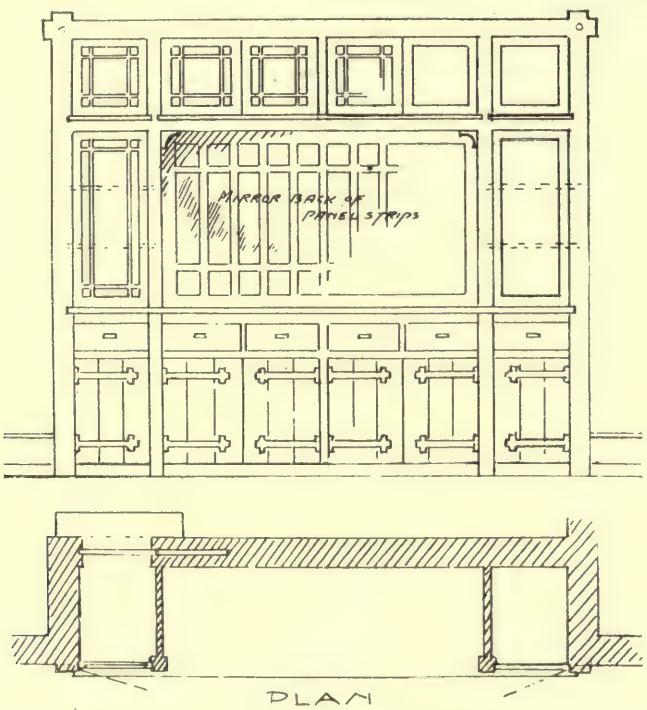
the sideboard should be made in keeping with their general style. For example, if the general style adopted throughout the house is colonial, a mission sideboard would not be in good taste. Neither would a colonial sideboard be proper for a mission interior. The size of the room in which the sideboard is to be built, should also be taken into consideration. Many an otherwise pretty dining room has been ruined through building in a large massive sideboard, which seems to predominate over the entire room, making the room look smaller than it really is. To overcome this very fault, mirrors are used in sideboards to a large extent, to give the effect of distance, and here is the one place





where a large mirror is in good taste. This cannot be said when they are used on mantels over fireplaces. The built-in sideboard should be made to take up as little room in the dining room as possible, and for this reason it is a good plan, and practicable, to build it into the wall, taking the space necessary for it, off of the adjoining kitchen or pantry, as the case may be. When this is done, it is often a convenient arrangement to have a little sliding door arranged in the back for passing dishes, especially when there is no servant in the house. It saves many steps and sometimes accidents in carrying dishes through swinging pantry doors. These sliding doors should be pretty well concealed. To be entirely practical, the built-in sideboard should have one large open space in the center for the cut glass punch bowl or the silver service, with possibly a shelf or a row of small cupboards with glass doors above it for valued pieces of china, and in the lower part, there should be at least two shallow drawers, subdivided with quarter inch partitions for knives, forks and several sizes of spoons. There should also be double cupboard doors with one or two long shelves behind on which to lay table cloths with as little folding as possible. These things are necessary for a well arranged sideboard. In addition, however, it is best to have several more drawers in which to keep center pieces, doileys and napkins, etc.

Illustrations show several sizes and styles for sideboards. Two of these designs are distinctly mission, and should only be used in the dining rooms which are otherwise in the mission style. In both of these designs the arrangement of having a row of small square cupboard drawers at the top with dividing glass lights has been adopted. Place behind these, small pieces of decorative china, and the effect is very pleasing. In one design the cupboards have been carried down both sides and in the rear of the center portion, an unusual effect is obtained by panelling it off with narrow strips in front of the mirror, giving a kind of garden fence appearance. Below the main counter shelf are six drawers



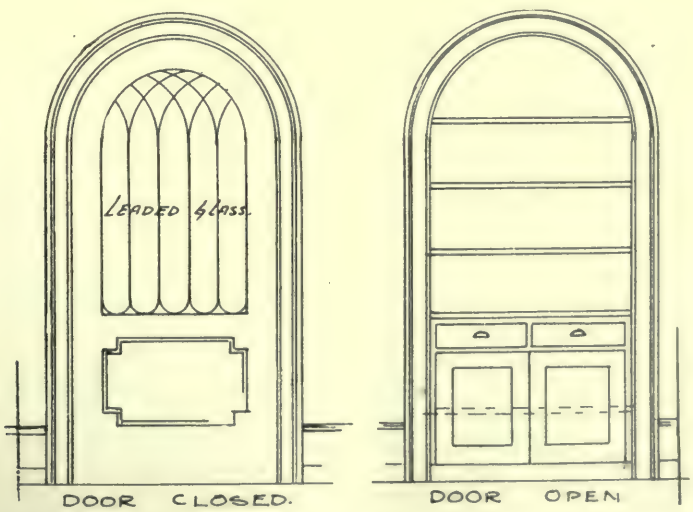
and plenty of cupboard space. This fixture if stained a dark mission and placed in a room suitable for it, would be very attractive. It is not a fixture, however, suitable for a small dining room.

One of the simplest, but at the same time, most attractive designs of those submitted in the line of drawings, is that of the colonial sideboard, having a cornice supported by two small Ionic columns, which are set upon pedestals. This fixture is drawn, as shown by the plan, to be set partly into the wall and partly into the room. In this manner, good depth is obtained. Right here, that point should be emphasized. Never build a built-in sideboard of shallow depth. It not only fails to look well, giving a cramped appearance, but in addition, it is very annoying as little use can be made of it.

The colonial fixture shown would look very well in mahogany or birch, stained dark. If the dining room were finished either in mahogany or white enamel, this sideboard would harmonize. There is nothing fussy about it. It is perfectly simple and therefore calls for little description; but it is probably the best appearing sideboard in this collection, being practical as well as ornamental.

The dimensions of sideboards vary considerably. There is nothing about them that calls for any fixed rules. They look the best, however, if kept on a line at the top with the top line of the window casings, and if there is a plate rail in the room, it is best to have it line up with some part of the sideboard. Also if there is a wainscoting in the dining room it looks best to have that line up with the main counter shelf of the sideboard, which should be under most conditions, about table height from the floor, or 30 to 32 inches. The width of the sideboard can vary according to its design and the size of the room.

One very simple sideboard is shown and for a simple little cottage home it has much to merit attention. The general effect is that of a cased opening, a casing has been carried around it in the same manner as a rounded door, with the upper part of the sideboard built into the wall and the lower part projecting into the room about one foot. In the upper part is a row of cupboards with leaded glass lights, separated by brackets. Two shelves are shown between them and the counter shelf, but the lower one may be omitted if desired.



Designs for the Home-Builder

THE designs that have been selected for this Christmas number, represent an interesting variety of architecture, from the modest five room cottage to the colonial city house.

We have this month a new contributor to this section of the magazine, George M. Kauffman, a well known architect of Cleveland, who has kindly furnished a number of designs, representative of his latest work, and we will have the pleasure of seeing one study each month.

The first design to be discussed is that of a firm, more familiar to our readers, Architects Downs & Eads, who give us a charmingly original study for the semi-bungalow, which is shown as

Design B 299.

Particularly is this study suitable for the suburban and seaside cottage, with its extended porch, not only across the entire front, but turning on both sides to a distance of some 15 feet.

The plan is exceedingly well laid out, and the interior detail calls for beamed ceiling in the living room, which extends clear across the front, also in the dining room, as will be noted by referring to the diagram on the opposite page.

The cottage is exceedingly roomy, offering the services of six chambers, in case that space indicated for sewing room and the den, should be desired as sleeping rooms.

The architects estimate that under the present conditions affecting building industry that it will cost approximately $5,500.

Design B 300.

The plan is very simple and compact and shows a small kitchen with the cupboards, range, sink and refrigerator so conveniently placed that many steps will be saved in doing the housework. This, together with the wonderfully good lighting and ventilation, has caused much favorable comment upon this house. Two bedrooms and bath are provided on second floor; also an unfinished attic, with a basement under the entire house. In this house one chimney answers all purposes and helps to make it a very inexpensive home. The architect, Mr. Newson, estimates the cost to build at $2,100.

Design B 301.

The colonial style is one of the accepted styles of architecture in this country. Representative of our old colonial designing is Mr. Clausen's sketch, the next design to be considered. This is a fairly good sized residence with a width of 44 feet and depth of 34 feet, exclusive of bays and porches. The second story has four excellent chambers and space for sewing room and servant's quarters, should they be wished to be located there, all opening off of central hall.

Design B 302.

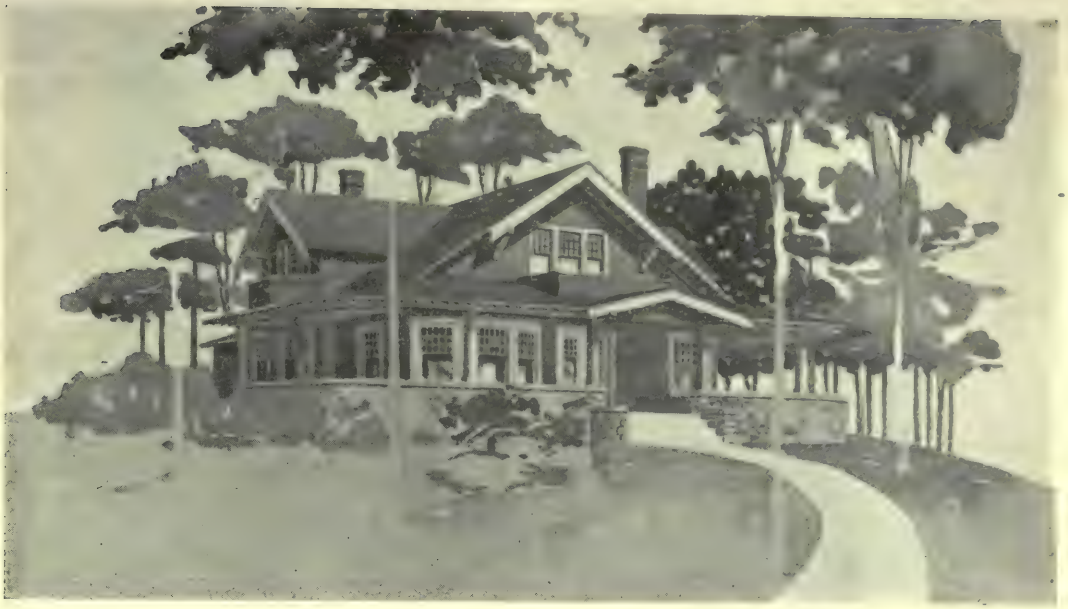
Simplicity and homely beauty are the dominating features of this design, and like the dignified old colonial houses, it will be permanently attractive. The deep overhanging eaves, with heavy brackets, give a feeling of protection. The group of heavy white columns supporting heavy beams, produce a sort of pergola effect and answer for a veranda at the same time.

The walls are a cement overcast and painted a straw color (slightly on the orange) with cement paint. The roof should be either variegated purple slate or moss green shingles. The shutters should be a shade of green in harmony with the roof and wall. The trim should be white. The veranda floor should be paved with either brick or tile.

The cost to build this house according to the design as estimated by Mr. Kauffman is $4,200.00.

Design 303.

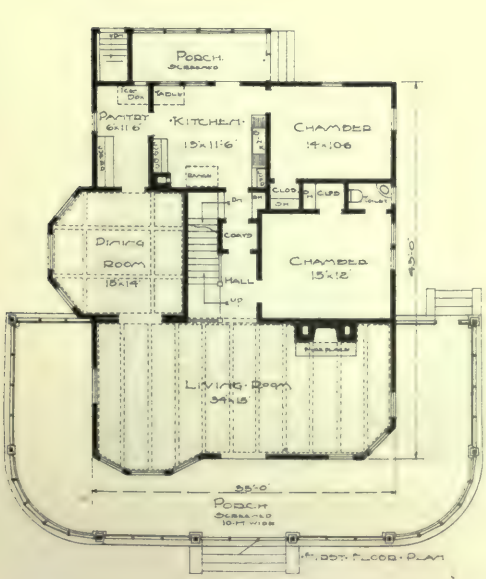
A very "Ideal Cottage Home" we emphasize because we believe this little plan is exceptionally good. The cottage is designed to be roomy and comfortable, but very simple in detail both on the

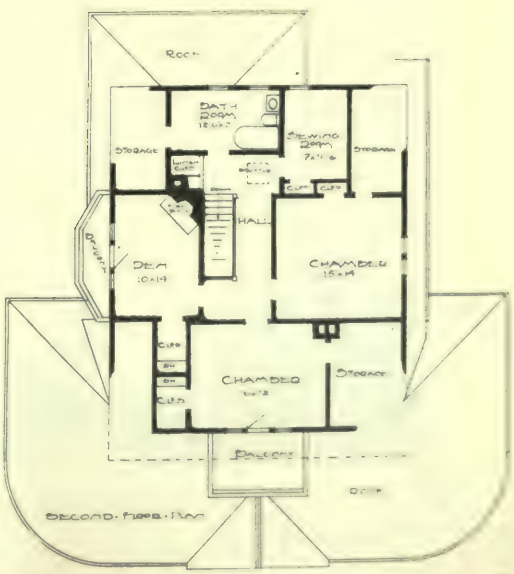


—Downs & Eads, Architects

A Good Bungalow with Sweeping Porch

DESIGN B 299





exterior and interior. The floor is elevated only two feet above the grade and the entrance is a simple timber constructed porch, the living rooms are thus exposed directly to the front giving plenty of light and sun, and for piazza, an inclosed floor space is planned back of the living room and in front of the dining room, both of these rooms opening onto the screened piazza with French windows. In the second story are three good bedrooms and a fine sleeping porch over the piazza.

The inside finish is plain smooth casings of Washington fir, stained dark mission and the floors of oak and birch. The outside walls are low, using 14-foot posts, the first story is eight feet high and the second story the same. The estimated cost is $3,000.00, exclusive of heating and plumbing.

Design 304.

An attractive home, six rooms, all large and roomy. The living room has a fireplace at one end and a well-arranged stairway and built-in seat at other end. There are three splendid chambers, ample closets and bath in second story. First story sided with shingles in the gables. The first floor is finished in birch or fir and second story in white enameled pine. Estimated cost to build, exclusive of heating and plumbing, $2,900.00.

Design 305.

This is one of the most successful modern homes, where the plan is one that will commend itself to everv practical housekeeper. It is a house to be constructed as a frame dwelling with siding for exterior finish. Full basement is provided with intention of installing hot water heat. Interior finish is to be oak in the principal rooms, the balance of the house finished in soft wood, pine or poplar, painted or stained. Plain hardwood floors in hall, living room and dining room. At the present time the house would probably cost $4,700.00.



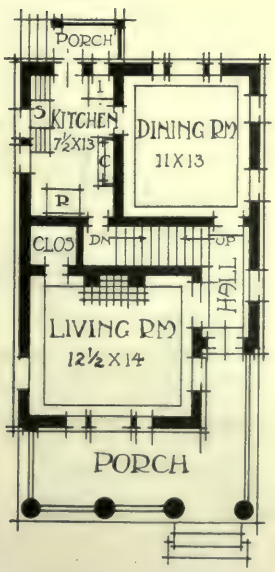
A CORNER OF STUDY WITH BUILT-IN WRITING DESK

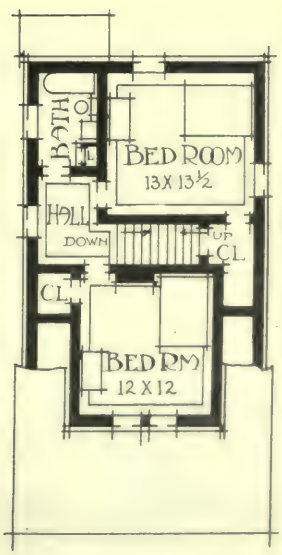


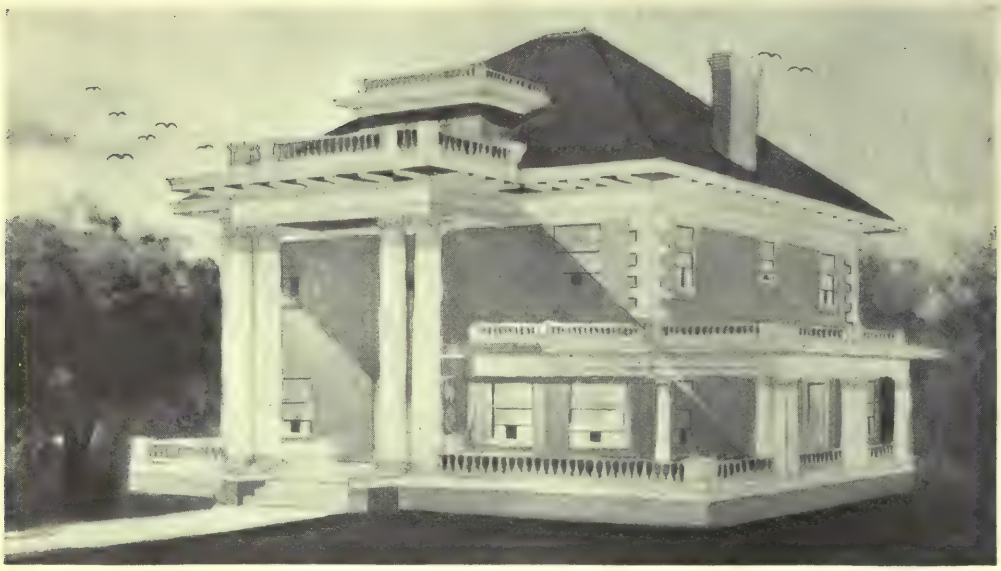
—John Henry Newson, Architect

A Five-Room Cottage

DESIGN B 300



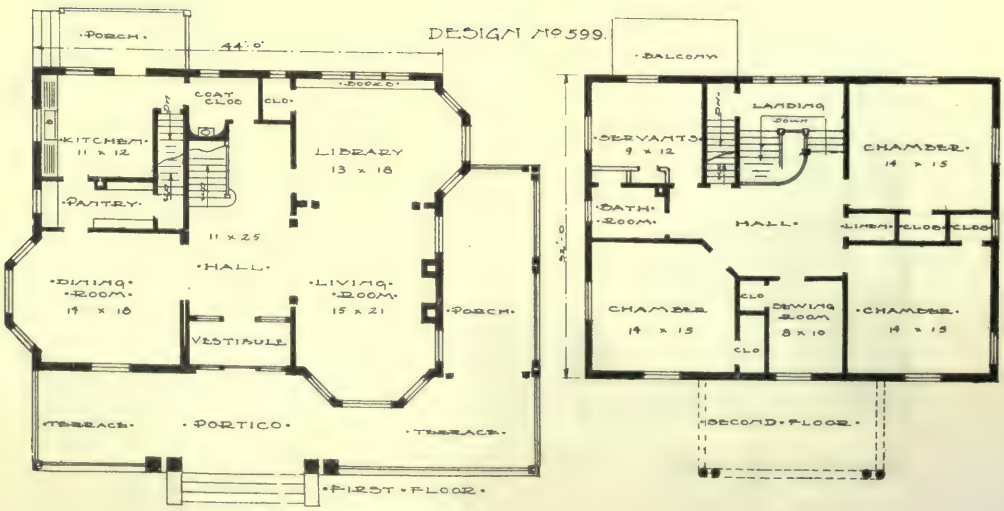




—Arthur C. Clausen, Architect

Well Proportioned Colonial Porch

DESIGN B 301

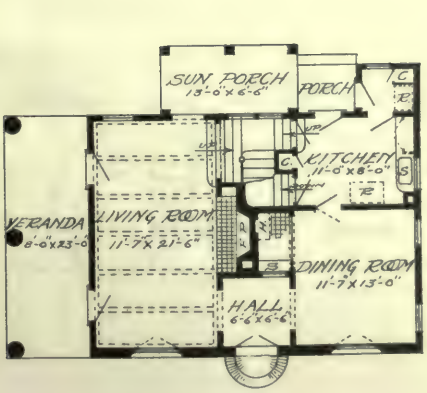


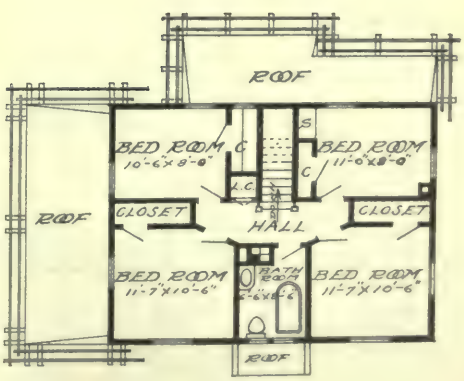


—Geo. M. Kauffman, Architect

A Very Pretty Home with Pergola

DESIGN B 302



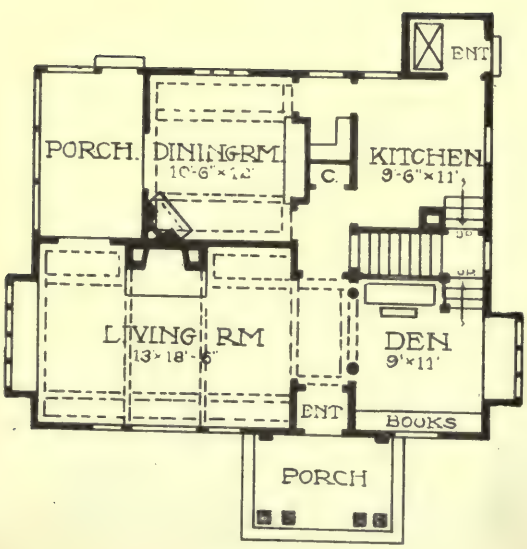


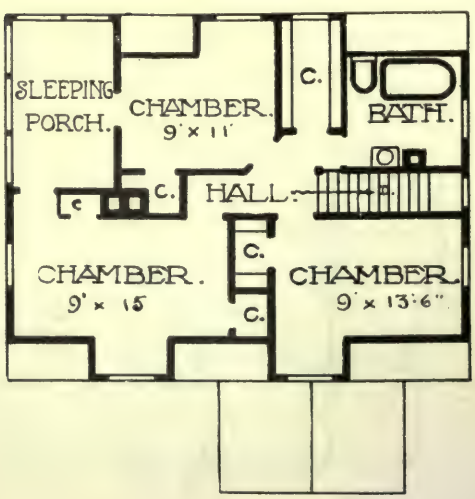


—Chas. S. Sedgwick, Architect

An Inexpensive Frame House

DESIGN B 303



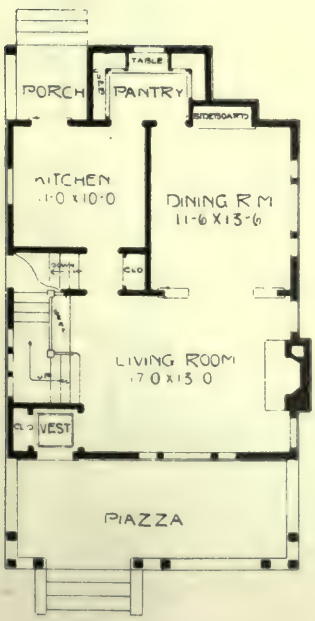


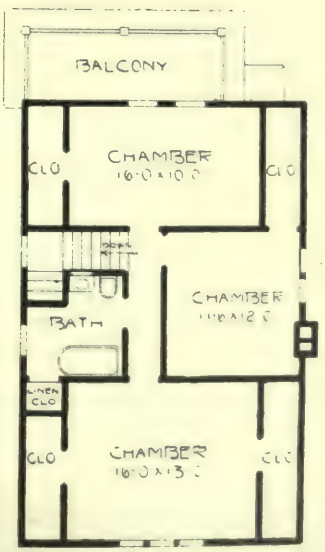


—Glenn L. Saxton, Architect

Pleasing Type of Second Story Over-Hang

DESIGN B 304

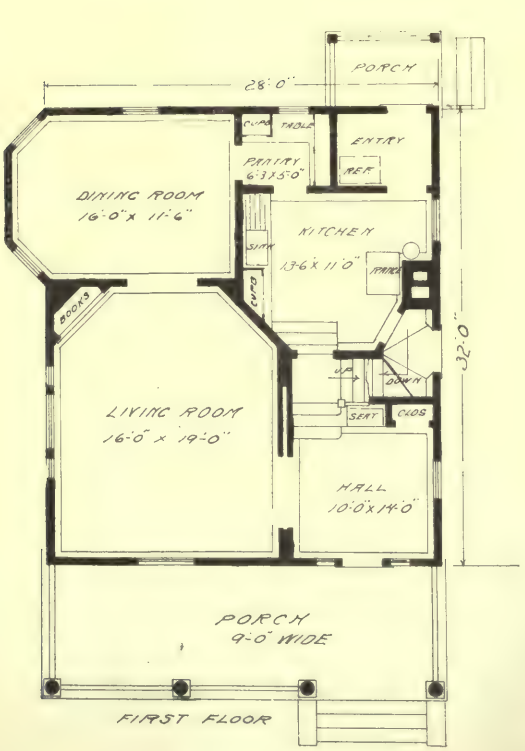


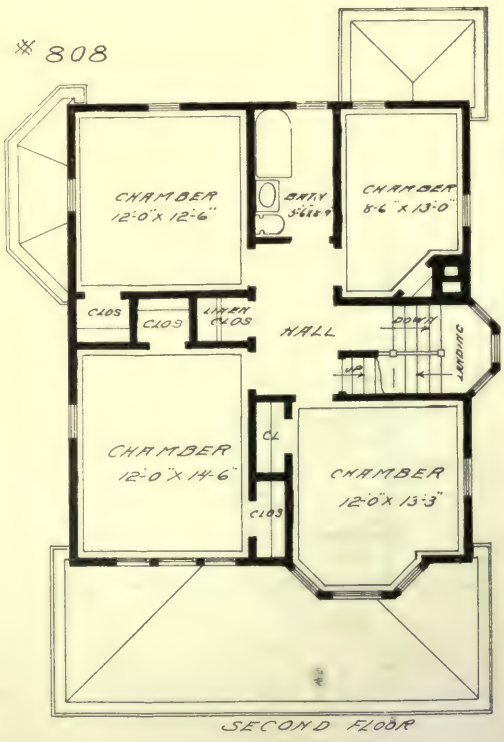




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(Miss Cummins will be pleased to send information as to where the articles mentioned below may be had upon receipt of a self-addressed stamped envelope at 413 Clinton Street, Brooklyn, N. Y.)

AN attractive Dutch dining room is carried out not in painful detail, but having more the air of the old Hollander, and suggesting rest and quiet rather than display.

The room is sixteen by twenty feet with beamed ceiling and walls of rough plaster colored a blue-grey; the floor, wood-work, including a plate rail, and furniture are of walnut.

The fireplace, which is one of the most artistic features of the room is built of blue clay Dutch tile and runs up to the mantle and plate rail. The opening itself is small and an oldfashioned iron kettle is hung by means of a broad leather strap fastened to the lower part of the mantle. The hearth is of brown clay tile which harmonizes with the walnut stain of the floor.

The one large window which lights the room is designed in keeping with the rest of the room and is high and wide in the Dutch style. The glass is cut in circles and diamonds and fitted into a framework of walnut. Dainty little curtains are hung at either end of the window, and are done in a hand stenciled lawn, making them beautiful yet inexpensive. A growing fern is placed in an odd jardinier and adds the finishing touch to this thoroughly pleasing window.

The large doorway opening into the living room is hung with curtains of mocha canvas, which are stenciled to match the window curtains.

The floor covering is a nine by twelve Axminster rug in various tones of blue, red and ecru and a little black around the edge. This rug, woven as it is in plain tones without design is not expensive and yet is always in good taste.

The two hanging domes are suspended from the ceiling by light-weight iron chains and are of a special design made up of oblong pieces of glass in a number of colors.

The furnishings include the dining table, sideboard, china closet, serving table and six chairs. The dining table is placed beneath one of the hanging lamps, opposite the window and to one side so as not to interfere with the view of the fireplace, which can be seen through the doorway from the living room. At the right of the fireplace is the sideboard and a picture depicting Dutch life is hung to the left of the mantle, to balance the sideboard. This is the only picture in the room and its frame is mill made and finished to blend with the colors of the picture. The china closet is built in and occupies the space between the window and the far wall and completes the furnishing of the room.

Taken as a whole the effect of this Dutch dining room is very pleasing and restful to the eye and if carried out properly will add a very distinctly artistic touch to the home.

The Intimate Quality of a Desk.

A writer on decorative art has pointed out that the small desk is not suitable for the public rooms of the house, that it has an intimate and personal quality, which should relegate it to the bed room or the boudoirs (if any one has this latter apartment nowadays). The fact that so many desks are made to match bedroom furniture would seem to confirm this theory.



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Suggestions for the Writing Table.

Since one must write in the public places of the house, something must supply the place of a desk in other rooms than the library, and the small writing table meets this need. Almost any small table which stands firmly can be used for the purpose, and it is a recent idea to have the writing table painted in some soft color, rather than of natural wood. For this purpose a table of what is called the cottage style, very simple in outline, and with a couple of drawers, may be had from the manufacturer in the unfinished wood, ready for painting. In color one has a considerable choice, the selection depending somewhat on the other contents of the room. In a room with light colored furnishings gray, green, mauve, or French gray are all possible. Some of the olive tones are also good. To go with the table there should be a chair of suitable height, and a stool to set at one side of it, both painted to match. Sometimes a set of hanging shelves, also painted, occupies the wall space above the table.

When table, chair, stool and shelves have had three thin coats of the best paint attainable, carefully strained through cheese cloth, and either a finishing coat of enamel, or a final coat of the same paint rubbed down to a dull polish with pumice stone and oil, the question of equipping the tables comes up. All sorts of charming things are to be had, from silver to Dresden china, but when one's resources are limited a perfectly satisfactory writing set can be made from brocade, embroidered linen, or even cretonne. Perhaps the best of all these is a Japanese brocade. The quantity required is very small, and the dull rich coloring is charming. Another good material for a light colored table is printed Persian cotton. The Morris brocade cretonnes are beautiful, but not always to be had. Then there are Dresden silks with gray grounds and blurred looking floral designs which are extremely pretty for a gray or mauve table. All of these silken materials require an edging of gold braid, or a finish of silk cord. The blotter should be large enough nearly to cover the top of the table, and is most satisfactory when made by covering over one of those sold in the shops, a comparatively simple matter. If one makes the whole thing at home, it is effective to have a wide band of the silk at one end of the blotter, and corners of the usual sort at the other. And Japanese grass cloth is a desirable material for covering the foundation of the blotter, also the sides of the waste basket and a pocket for papers to be fastened at one side of the table.

Small articles, paper racks, hand blotters, boxes and trays can be found at the places where they sell materials for pyrography, and painted to match the table. With a little ingenuity the paper racks can be ornamented with a panel of brocade or cretonne, edged with a glued-on strip of gold braid. Naturally the inkstand will be of metal or china, but risk of accident is much lessened if it is set on a coaster. This is made from a circular gilt or gun metal picture frame, of small diameter, with a bit of brocade, or cretonne, in the place of a picture, and a backpiece of cardboard covered with the same material. An oval frame, of some size, filled in in the same way, will hold the inkstand and answer the purpose of a pen tray as well.

The desk chair and the stool may have cushions of material to match the desk furnishings, or of something harmonizing in color with the wood. A table and chair painted gray green was supplented by cushions of stripped green and white glazed chintz while a wistaria patterned cretonne was used with mauve enamel, with plain mauve brocade for the desk set and a silver inkstand.

The Vogue of White Furniture.

Not merely for the summer house, but for use all the year round, white furniture is in high favor. Some of it is delicately carved and painted in two shades of grayish white, with panels of fine cane. Other pieces of simpler outline and structure are ornamented with small bouquets, daintily painted. Particularly new is white furniture with small panels, or medallions inserted. Some of these are painted in delicate colors, suggesting cameos; others are carved and picked out in greenish blue. These latter are associated with chintzes in greenish blue

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and white with good effect. This white furniture is particularly good in connection with the very decorative cottons of Oriental design, such as our grandmothers used to copy in crewel embroidery.

New Japanese Couch Covers.

Among recent importations are couch covers of heavy cotton in a basket weave, with a Greek key pattern for border. The center of the cover is golden brown, the border in tones of green and brown. This costs $10.00, 3 yards by 60 inches. Other couch covers are more or less close copies of Oriental rugs, and the prices range from $5 to $15.50.

A Use for Old Chenille Hangings.

An ingenious woman has found a use for the chenille portieres which some of us have laid away. She ravels out the chenille and crochets it in single stitch over heavy twine. It makes a very durable rug, whose beauty depends upon the color of the chenille.

The same sort of rug can be made from cotton rags cut in very narrow strips and sewed together as for rag carpet. At one of the exchanges they have some most effective round and oval rugs made in this way, in which old blue, and plain white cotton have been used, in combination with blue and white checked gingham. The rags had evidently been torn, as the rug had a rather fluffy surface. Some reader may find the experiment worth making.

The Popularity of Crocheted Lace.

The vogue of Irish crochet for dress purposes has made a market for the Syrian work, which is sold in large quantities for decorative uses. Making Irish lace requires endless patience and a good deal of eyesight, but almost any one can copy the Syrian work, and it is effective for many household purposes. It is much improved by the use of a finer needle, and by the substitution of the regular Irish lace thread for crochet cotton.





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ANSWERS TO QUESTIONS
ON INTERIOR DECORATION

Editor's Note.—The courtesies of our Correspondence Department are extended to all readers of *Keith's Magazine*. Inquiries pertaining to the decoration and furnishing of the home will be given the attention of an expert.

Letters intended for answer in this column should be addressed to Decoration and Furnishing Department, and be accompanied by a diagram of floor plan. Letters enclosing return postage will be answered by mail. Such replies as are of general interest will be published in these columns.

Exterior and Interior Finish.

J. F. S.—Enclosed please find blueprint of east side elevation and floor plan of a bungalow which I have just commenced building, and as a subscriber to your valuable magazine, would like if you would kindly give me some information as to decoration and painting, both on the exterior and the interior.

The roof and sides are to be covered with cedar shingles (which will be stained) except on the sides which will be sided up to bottom of windows (3 feet) with cypress siding laid about 3 inches to the weather. The balance of outside trim will be such as cornice and windows and porch posts and railing will also be of cypress. Would shingles on roof stained a dark red and the shingles on sides stained a dark brown and the cypress weather boarding and also cypress trim on porch, not painted but finished natural, harmonize? Would you advise me to finish rest of trim (cornice, window frames, etc.), same as rest, of cypress? or should it be painted cream white?

Will red bricks be all right in the fireplace I intend to have in the living room? Should the front door in the vestibule and the outside front door have a long plate glass square in form or should it be of the "Craftsman" design with small glass?

Ans.—It is advised not to use a dark brown stain on body of house if you desire a red roof. Personally, we should prefer with so much roof surface, the cypress shingles either left to weather a soft grayish brown, or merely oiled. Then the cypress siding stained a warm tobacco brown and all the trim painted a deep cream.

Red brick chimneys would give a sufficient touch of color. For the interior brick facings of fireplace, however, we should prefer brick in some shade of golden or mottled brown.

With golden oak furniture, your inside wood work can hardly avoid treating with a brown oak stain. The walls of living room, too, must be kept a soft ecru color and the curtains be cream or pale ecru rather than white. The dining room can introduce color in a high frieze above tops of doors and windows, as designs of oranges and pale green foliage. Wall below, golden brown and ceiling cream.

The narrow inside hall should have cream walls. The bed room with one window should have buff wall, white ceiling and Delft blue furnishings and rug. The other bed room pale tan wall, cream ceiling and cretonne showing browns, reds and blues on cream ground. The bath room walls and ceiling should be painted ivory white. The kitchen woodwork also white, but if this is not desired, then finished natural and varnished, with walls painted buff and ceiling white.

Do not use plate glass in a bungalow entrance door. By all means use the Craftsman door with small panes of glass.

Ornamental Glass.

W. C. F.—The windows are casements, some small oblong panes, some diamond panes. The exterior of the house is a combination of Spanish and Italian, of rough, oriental brick, stone trimming and green Spanish tile roof, but the interior is Colonial. What kind of front door and side lights would you suggest? An ornamental window will be in the rear of hall above the stair landing; should there be much color, if any, in this window? Is not leaded glass now passe? What kind of an ornamental window would you suggest? Should the interior of the sleeping porch walls be plastered, or just leave the rough brick surface (which, by the







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Our long-standing agreement to refund your money and freight charges if the furniture proves unsatisfactory, would prove nothing at all, if we were not a responsible concern with ample means and a reputation for fair dealing that is more to us than the possible profit on your orders. Send for this catalog now—it is a guide to satisfaction in furniture buying—six big money-saving departments showing over three hundred bargains in home furnishings—It will post you fully on the latest and best. **Write to-day; a post-card will bring it.**

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way, might harbor dust and insects)? This porch will also have casement windows like sun porch below. Kindly suggest places for lighting fixtures in each room, also what kind of fixtures for each room and halls?

Ans.—Regarding the style of entrance door, on page 15 of our Interiors Beautiful is shown an entrance which would seem to come as near fitting in with the exterior of your house and a Colonial interior, as anything we can suggest.

In regard to ornamental windows, while it is true that the gaudy effects of stained glass as used in many houses a dozen years ago, is happily past, there are delicate colorings and an artistic use of leaded lines which are extremely decorative in a handsome house. We will again refer you to Interiors Beautiful, which contains, besides illustrations of the modern art glass, very helpful remarks on the subject. We have seen the wisteria motif used in the French doors which open out onto a terrace and in the glass of the front door with great elegance, very light color being used.

As to plastering the walls of the sleeping porch, we should advise either that or ceiled with wood.

Your architect should arrange the outlets for your lighting fixtures and suggest their character. A general color scheme for the lower floor would be harmonious if the reception hall, music room, drawing room, divided only by columns, were treated with a paper hanging of self toned tapestry design in soft grays, depending on varying colors in rugs, furniture and draperies, to differentiate the room. As for instance, the northeast drawing room could be furnished with a deep toned rose rug and rose velour draperies. The reception hall be a mixture of rich blue and rose red, with music room in plain, rich, deep blues. Ivory white wood work should accompany such a scheme with mahogany entrance doors, stair and furniture. In the hall, however, furniture of fumed oak or Circassian walnut with antique cane seats and backs is quite the latest thing.

An Old House Remodeled.

M. H.—Am about to remodel and redecorate our old house and would like your advice. Enclose sketch of the three rooms on lower floor, which perplex me. The two rooms are rather dark, a porch being around the front room, which faces east. The walls are papered now and the woodwork in front room is white, in the other a light gray. Dining room, tan. Can a paint be put on in dull finish to simulate an oak stain? Or what would you advise? Have various pieces of furniture, of good, plain design, leather upholstering. The dining room furniture is golden oak, chairs plain and leather seats, etc.

Ans.—We should leave the front room woodwork white, do the walls in a pretty all-over figured paper in soft blues, greens and rose and cream, with a 2½-foot dado in plain gray-green burlaps, put a gray-green plain terry carpet on the floor and furnish it with green stained wicker furniture upholstered in cretonne and such mahogany pieces as you have that are not upholstered in leather.

Your mirror with walnut frame will look well here, if glued on ornaments are taken off and the frame re-polished. Now we should use this room thus treated, as a sort of parlor and the library, as a family room. Here we would paint the woodwork a dull soft shade of green. Never, never think of "imitating an oak finish with paint." It is atrocious. This room might have a two toned putty gray wall and carpet in two shades of green.

The dining room furniture being what it is, the woodwork here had best be painted same as library. The wall could have an imitation grass cloth paper in brownish, greenish gray up to plate shelf and above that a deep frieze introducing dull reds, blues and brownish grays on the same paper as below. Do not have paneled wood strips. It is going out. The woodwork of chambers best be white. You can use old fashioned flowered wall paper in one with the old style dresser and it will be very pretty. A light blue chambray paper with the white enameled bed will be good.





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The Burden of the House.

ALL over the country there are charming houses which, owing to peculiarities of construction or finish, or to the conditions of the labor market, are heavy burdens on the shoulders of their mistresses. In most cases the condition is due to the fact that the cost was not counted when the house was built.

For example, nothing is more charming than white woodwork for the interior finish of a colonial house, but white woodwork in a city where there is a constant consumption of soft coal imposes endless labor upon some one, if it is to be kept decently clean. Woodwork finished with a high polish, in a house standing close to an asphalted street with much traffic, needs dusting twice a day, and even then is open to criticism. Elaborately carved furniture in such a house is very soon shabby, and a constant care. When there is only one servant, or none, the situation is almost tragic, for no woman likes to be criticized as a poor housekeeper, nor is it practicable to spend hours each day dusting.

Then the arrangement of a house is often such as to make living in it very hard. The spacious kitchen sins greatly in this respect. A maid who spends much of her time in it may not mind the extra steps, but the endless walking back and forth in a large room is very hard upon the mistress who has also to walk in the other rooms of the house, and abroad as well. In a certain type of house, very common in Eastern cities, the kitchen and dining room are on different floors and living in one of them without at least one servant is almost an impossibility.

Other things, too, make living a burden, largely among them the multitude of people's belongings. Wedding presents are a tremendous handicap to many a woman. A multitude of ornaments is a great care, and a few sumptuous articles are apt to pitch the key too high for a modest household.

A great many readers of Keith's Magazine are planning for their own houses, houses picturesque outside, homelike inside, but the matter of their being easy to live in should not be neglected, and the only way to secure that result is consider the detail of the daily routine in connection with the plan chosen.

The Pros and Cons of the Bare Floor.

In connection with this subject it may be well to take up one point which must be considered by every one who is planning a new house. "Shall I or shall I not have bare floors?" No one in this age of the world doubts the superiority of the hardwood floor, with few or many rugs, over any sort of permanent covering, but it is impossible to deny that it involves a great deal of work for some one, especially if it is at all dark in color. And may not its hygienic and artistic advantages be too dearly bought? It is no slight task to dust all the floors of a house every morning, and yet that labor is the price paid for a presentable hardwood floor. Add to this labor the need for frequent refinishings and the sum total of labor and expense is sufficient to be a very considerable burden to the mistress of the house, whether she does the work herself or deputes it to others.

There is not a word to be said for the nailed down carpet, taken up not oftener than once in two or three years, and accumulating dust and germs all that time.

To the Owner of the House

Whether Home, Apartment Building or Business Block.



Every consideration of convenience, health, economy of upkeep, earning power of your investment and security against rapid depreciation demands that you install the

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In a recent test of five of the leading stationary air cleaning systems, conducted for the City of Detroit, Michigan, by a board of disinterested engineers of international reputation, consisting of Professor John R. Allen, of the University of Michigan; Mr. Charles H. Treat, Chief Designer of the American Blower Company, and Mr. Howard E. Coffin, Vice-President and Chief Designer of the Hudson Motor Car Company, all of whom are members of the American Society of Mechanical Engineers, the TUEC was unanimously declared to be the system of **highest efficiency, greatest simplicity, durability, silence, capacity and economy of money, labor and floor space.**

The TUEC scored a total of 97.6 points out of a possible one hundred, its nearest competitor scoring but 85.5 points.

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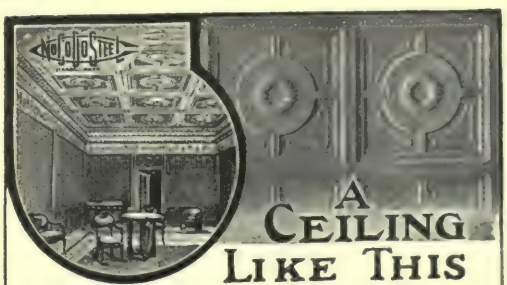


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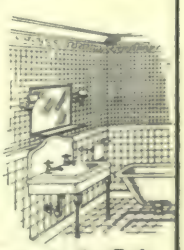
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There is not very much more to be said for the large rug which covers almost the whole surface of the room and which is beaten not more than two or three times a year. The former is a menace to health. The latter is only tolerable when the services of a man are to be had to take it up and clean it once a week.

A convenient compromise between the convenient and the artistic is afforded by the matted floor, with moderate sized rugs easily cleaned. It does not absorb the same amount of dirt as a carpet, but the dirt adheres more or less to the surface and there is no accumulation of bunches of lint around the edges of the room. A matting can be easily cleaned with a carpet sweeper, and an occasional wiping with cold water will freshen it perceptibly. It has the advantage, if plain or nearly so, of making the room in which it lies look larger, and it is a capital background for rugs. It is of two sorts, the thin, flexible cotton-warp sort made by the Japanese, and the heavier kind, with a hemp warp, of the Chinese. The latter is the more durable, the former the more easily put down and taken up. The Chinese mattings which have any color at all are apt to have a checked appearance which is not always agreeable, and the weave is so irregular that the lines of color do not always match at the seams. So the better choice is the plain white, which can always be matched. The colored Japanese mattings are made to suit their ideas of European and American taste, and have too much pattern to look well, but there are white ones with irregular dashes of color and black that are very agreeable. A lining is desirable with any matting.

To people who think of mattings as suitable only for bed rooms in farm houses, it is a revelation to see the exquisite qualities and wide variety carried by the Oriental houses, forty or fifty dollars a roll being charged for some of the better qualities.

The Oriental mattings have a great advantage in point of durability over the various sorts of domestic mattings. The very fact of their Eastern origin seems to make them harmonize better with Oriental rugs, and it is to be regretted that they have so fallen into disuse.

A Washing Machine Tip.

The writer confesses to having no practical experience with washing machines, in fact she is not certain that she has ever seen one, but she passes on the suggestion of a friend who uses one very successfully in his farm house home. He has obviated all the labor of carrying water to fill it by the simple device of attaching a length of heavy rubber tubing to the nozzles of the kitchen faucets, its other end fitting a hole in the cover of the machine. A hole has been bored in the side of the machine and a spigot inserted, and another length of rubber tubing attached to it empties the receptacle into a convenient drain.

Efficient Laundry Methods.

It perhaps goes without saying that to be really efficient they must have an intelligent person to apply them, as the average domestic is impatient of any ideas but her own.

One point is to sort the clothes carefully, washing the least soiled first, using a separate water for each detachment. Another is to spread articles well out so that every part is reached by the water. Another, much neglected by the average laundress, is to restrict the bluing process to **white** clothes.

New colored clothes should be soaked in salt and water to set the color, washed in water almost cold, with a pint of naphtha to each gallon. This is the method of foreign laundresses. A white soap, Castile or ivory, is best for colored clothes. Lawns and muslins, also fine laces, can be given the same finish as when new with thin gum arabic water. This is an excellent finish for thin silks.

Ordinary starch should be boiled and stirred constantly. The proper proportion is three tablespoonsful to a quart of water, besides the cold water in which the starch is dissolved, and it is a good plan to strain it to be sure that there are no lumps.

In cold weather it is a good plan to hang delicate things like muslin waists and babies' dresses between two towels or pillow cases, as they are less likely to be damaged by frost. And at any time of the year it is well to hang colored waists or dresses under a sheet.

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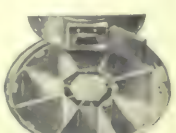


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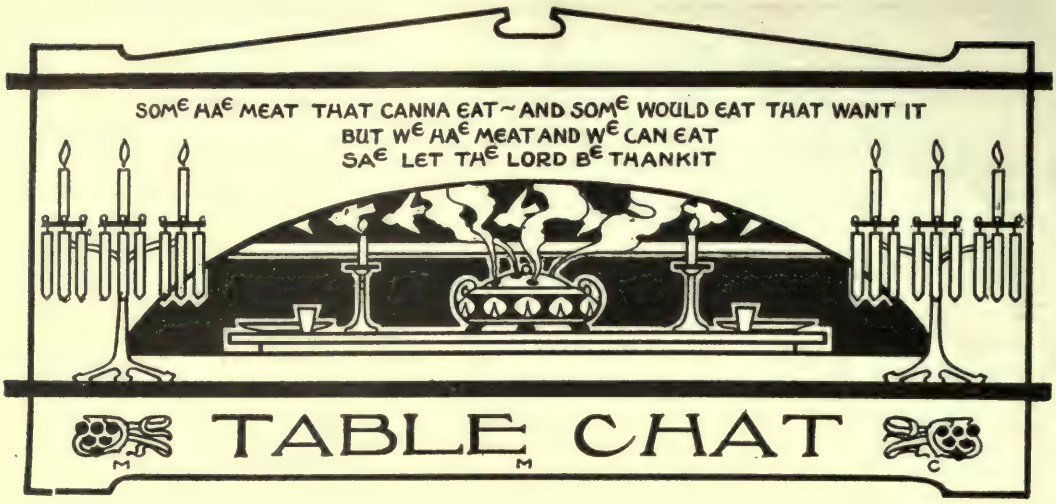
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By BEATRICE D'EMO



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THE woman who has no special knack in embroidery, lace making or painting, but who has culinary lore at her fingers' ends, has the means of making most acceptable Christmas presents of a novel kind; all she needs do is to ascertain the pet tastes of her friends as regards dainties to tempt the appetite, then go to work to prepare these in the most effective manner possible, including in the work the prettiest form of packing and dispatching the eatable, so that it is at once a delight to the eye and a pleasure to the palate of the fortunate one for whom it is intended.

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Samson Cordage Works
Boston, Mass.



Our Beautiful Booklet, "Pergolas"

Illustrated with views of some of the most attractive new homes and grounds showing exceedingly artistic results in pergola treatment. This booklet is right off the press, and is yours for the asking. Send for catalogue G27 of pergolas, sun dials and garden furniture or G40 of wood columns.

Our illustration shows the attractive effect that can be obtained by adopting pergola treatment for your garage This adds but very little to the cost of the building and makes it an attractive feature of your general landscape scheme instead of an eyesore, as it frequently is.

Proportions in columns make or mar the success and artistic effect of the pergola That is why a pergola built with

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made in classic proportions, will insure your getting a charming and beautiful pergola. They are equally suitable for porches or interior work and are made exclusively by

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Among the products of the kitchen which will prove suitable for presents are individual glasses or molds of jelly, jam, pie, tarts, plum pudding, loaf cake or small fancy cakes, rich cookies, stuffed dried fruit, home made candies and extra nice pickles. If one has a specialty, such as a certain kind of cake, she might make all her presents of the one thing, merely varying the size of each, thus securing an individuality in her gifts.

For a non-housekeeping friend a daintily packed basket of well filled jelly tumblers, each of a different flavor, would certainly be acceptable. Pretty little baskets of novel shape can be purchased for ten or fifteen cents, and if of plain splint can be made effective with Christmas ribbon. If one of the jelly tumblers be taken when purchasing the basket, the latter can be obtained to hold three, four or six glasses of any size which happens to be on hand, but the small tumblers, holding say a quarter of a pint, are the daintiest. If one has plenty of jelly put up in larger tumblers, it will be an easy matter to slightly heat it, then pour it into the smaller glasses, but fresh jelly also can be made from apples, mint, oranges and cranberry.

Mint jelly is delicious either eaten alone or as an accompaniment to mutton or lamb, and a box or basket of glasses containing this alone would be much appreciated by a housekeeper. To make it, cook two pounds of greening apples as for apple jelly, adding just before the final boiling is completed two bunches of fresh mint chopped fine, also the juice of one lemon. Strain, and before putting in the glasses color a delicate green with spinach juice or harmless vegetable dye. A pretty combination of colors in one basket can be made of the mint, red apple or cranberry and the yellow orange jelly.

* * *

Miniature plum puddings to be eaten cold with hot sauce, or which can be reheated by steaming, make very festive looking and delicious little presents for two in a family, or maybe for a bachelor man or maid to hold a solitary feast upon. Half pound baking powder cans make just the right size molds for them. To make six by a very excellent old English recipe put a pound of stale bread crumbs to soak in two cupfuls of boiling hot milk, and leave until cold, when add a cupful of granulated sugar, the yolks



A FESTIVE AND DELICIOUS PRESENT

For Christmas Gifts

Let your gifts be of silver this Holiday season. What would be more appropriate than Table Silver—Spoons, Forks, Knives, Serving Pieces —or a Combination Chest. And if it is 1847 ROGERS BROS. silverware it will be especially favored because of its unvarying quality and richness of design.



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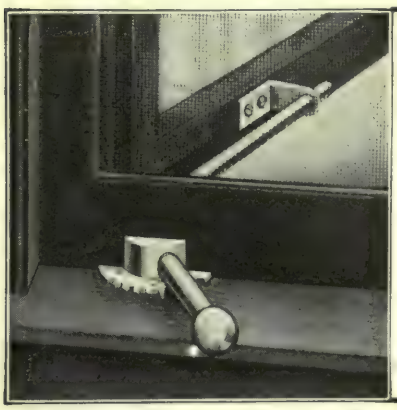
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of eight eggs beaten until they are smooth and creamy, a pound of stoned, chopped and floured raisins, a pound of washed and floured currants, a quarter of a pound of chopped citron, a pound of chopped suet, a wineglassful each of sherry and brandy, if there is no objection, a nutmeg grated, and a tablespoonful of mixed spices. Mix these ingredients, then fold in the whites of the eggs which have first been whipped to a froth. Butter the little molds and pour in the dough to within an inch of the top, then cover tightly and boil steadily for four hours. It is best to tie a strip of cloth wet in melted suet around the closing edge of each can, so that no moisture can gain entrance. After the little puddings have cooled in the molds turn them out, let dry off, then wrap each first in parafine paper, then in a square of white tissue paper that has had the ends cut to form fringe, and tie up with scarlet ribbon, tucking a sprig of holly under the knot.

* * *

A mince pie is only second to plum pudding in its welcome at holiday time. Mince turnovers, known as tarts, are also excellent.

For the Banbury tarts make a paste of half a pint of seeded and chopped raisins, half a cupful of washed and dried currants, half a pound of granulated sugar, two tablespoonfuls of bread crumbs sifted until very fine, a well beaten egg and the juice and grated rind of one lemon. Roll out pie paste made as just described and cut in circles the size of a large saucer; on these lay a heaping tablespoonful of the filling, then fold over to make semicircles; pinch the edges together, shake granulated sugar over them and bake for twenty minutes in a moderate oven. A half dozen of these small dainties can be packed in a pretty box lined with parafine paper, then tied with narrow red and green ribbon, or each tart may be twisted first in the waxed paper then in white tissue paper with the ends fringed, a seal of red paper keeping the tissue in place.

A roll of rich homemade cookies makes a Christmas gift by no means to be despised. If only one roll is sent it should consist of half Christmas fruit cookies and half nut cookies. Both are delicious,



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and the combination is especially nice. Not less than a dozen, and preferably (to the one who will receive them), a dozen and a half should go to a roll.

In homemade candies fudge is the prime favorite, which is fortunate, for it is also easy to make. For plain vanilla fudge boil together 1 lb. each of brown and granulated sugar with a cupful of milk and a heaping teaspoonful of butter, and cook until a little when poured on ice grows hard, when remove from the fire, stir hard and pour into buttered tins, cutting it into neat squares when almost cold. For chocolate fudge add two squares of grated chocolate to this recipe. For nut fudge, either chocolate or vanilla, add a cupful of either English walnuts or hickory nuts chopped very fine. For maple sugar fudge use maple sugar instead of brown sugar. Divinity fudge is made by adding a half a cupful each of nut meats and finely chopped seeded raisins, and beating in the well whipped white of an egg. Pack confections in neat little white satin paper boxes.

Whole Tomatoes.

Another bit of forethought is canning whole tomatoes, to be used for frying or for salads. They must be chosen with great care, under rather than over-ripe, and very carefully packed in the jars, the cooking being done after they are bottled. (Isn't it claimed that things of this sort can be done in the fireless cooker?) But with care it is quite possible to have them in perfectly good condition to serve with a mayonnaise, to broil, or to fry.

In the construction of pantry sinks, porcelain or copper is the best material to be used. Not only are these materials easily kept clean and health-giving, but they are the most attractive to the eye of any material suitable for sink construction.



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The subscription price is $3.00 per year. But to introduce The House Beautiful to new readers, we are making a special trial offer, outlined below. For $1.00 we will send you The House Beautiful for FIVE months, beginning with the current issue, and also make you a present of "The House Beautiful Portfolio of Interior Decoration." The Portfolio is a collection of plates, many in colors, picturing and describing rooms which are unusually successful in their decoration and furnishing. The Portfolio alone is a prize money could not ordinarily purchase.

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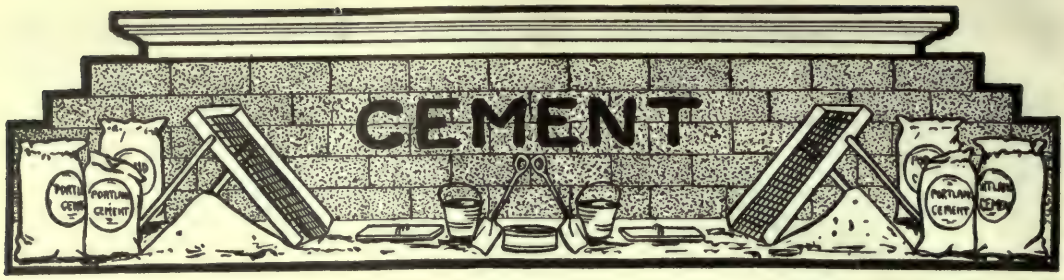
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Cement Floors.

FINISHED cement floors have for many years been common for cellars and porches of residences. With the advance of the industry many owners, convinced of the advantages of finished cement floors in the living rooms have had their houses built accordingly, laying rugs immediately over the cement floors. Ornamental colored floor tile has now come into the field and has resulted in a marked improvement, producing a floor which has all the strength, endurance, and sanitary properties of the ordinary finished cement floor and in addition a warm, pleasing effect. This material was used for the floors of Miss Lillian M. Williamson's Cement Show Prize House.

Cost of Granolithic Finish on Concrete Floors.

The following figures of cost for the finished surface of granolithic concrete floors are average results obtained by the Aberthaw Construction Company of Boston, Mass., during their long experiences in laying this class of floor.

For a one-inch finished surface laid integral with and at the same time as the structural concrete, finishers being 50c and laborers 20c per hour, costs figured for one hundred square feet of finished surface:

Finisher's time	$1.00 to $1.30
Mixing and placing concrete	.42
Cement 1.11 bbls. @ $1.40	1.55½
Sand 3½ feet @ $1	.12
Fine stone 3⅝ feet @ $2	.25
Total	$3.34½ to $3.64½

If laid after structural concrete has set and not integral with it, the total cost of the floor will be about $1.05 more per 100 square feet. If finished surface is reinforced with ¼-inch steel bars 12 inches on centers to prevent cracking, add extra labor for mixing and placing concrete 40c, and extra labor finishing 30c, or 70c per 100 square feet, and for placing steel, 50c per 100 pounds, with cost of steel about $3 per 100 pounds laid down.

Repairing Concrete Floors.

There is a popular and widespread fallacy to the effect that a concrete floor once chipped or cracked is practically at the end of its usefulness.

In this connection, the practice of the Aberthaw Construction Co., the Boston concrete contractors, is worth noting. In certain of the concrete buildings erected by this firm, floors have been chipped in particular places because of some phase of the industry which gave rise to dropping heavy materials in one place—as for example, the winding rolls in a paper mill. When a floor has become chipped out in some such manner as this, the proper method of repairing is to chip out with mallet and chisel a recess, usually square, of sufficient depth to reach to the bottom of the deepest break in the concrete surface. The rough surface resulting from this process is then treated with acid to bring out the solid aggregate, or else a stiff brush is used to remove all the loose dust, and the recess washed out by sluicing out with a hose. When all the dust particles have been removed, the recess is grouted with cement; and before this has set, the granolithic finish is applied and leveled up with the rest of the floor.

Repairs made in this manner are just as permanent as the remainder of the floor, as the bond between the new and old concrete will be perfect if all the loose material has been carefully removed.—Cement World.



Asbestos "Century" Shingle Roof—Eighth Church of Christ, Scientist, Michigan Avenue and Forty-fourth street, Chicago, Illinois

Asbestos "Century" Shingles

"The Roof that Outlives the Building"

THE time to think about the durability of your roof is before you put it on---not after the repair bills begin to come in.

Look over all the roofings in the market.

You'll find that only one is truly permanent---Asbestos "Century" Shingles, made of Reinforced Concrete.

As you know, reinforced concrete is absolutely indestructible. Concrete structures have stood centuries of time—the climates of all parts of the globe—the most disastrous fires in the history of civilization.

Many attempts have been made to apply this material to roofing purposes—but without success until the inventor of Asbestos "Century" Shingles used *interlacing asbestos fibers* as a reinforcing.

Asbestos "Century" Shingles are protected by basic patents, They are the only practical roofing made of reinforced concrete in the world today.

You can get Asbestos "Century" Shingles in shapes to suit any architectural style—in several sizes—and in three colors: Newport Gray (silver gray), Slate (blue black) and Indian Red.

Ask your representative roofer about this indestructible roofing—or write us. Send for Booklet "Reinforced 1911." It will settle your roof problems to your great satisfaction.

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Corroding of Reinforcement.

On the controverted question of the life of steel embedded in concrete, instructive light is thrown by the electrolytic theory of corrosion, says Cement World. According to this theory, iron can pass into solution only when an equivalent amount of hydrogen passes from the ionic to the gaseous state; and if the hydrogen concentration is reduced, the rusting of the iron will be diminished. This is achieved by adding a strong alkali to the water which is in contact with the steel. The caustic lime given off by Portland cement in setting and hardening has this action, and iron or steel embedded in concrete will not rust so long as this caustic lime is present. Unfortunately it is soluble in water; and it is therefore desirable to make the concrete containing steel reinforcement very dense, since by so doing the protective properties of the concrete will be maintained for the longest time.

The Fireproof Garage.

The garage is a truly modern problem for the architect. It must be fireproof and light. When many machines are to be stored it must be extensive and at the same time free from columns over large areas. A few years ago this long-span requirement would have been solved by the use of steel trusses, but today concrete is the recognized material. Steel trusses will not stand heat. A burning machine may easily cause a truss to buckle and wreck the roof. But a concrete beam roof support is absolutely safe even in the worst of gasoline fires. That this fact is understood and appreciated by architects is evidenced by the many splendid auto sales rooms and garages of concrete throughout the country.

To Prevent Sweating on Stone Wall.

"I want to remedy a tendency toward sweating on the inside of a stone wall. How shall I do it? I had thought of using cement mortar with waterproofing on the outside."

Sweating on the inside of a wall does not indicate porosity in the wall. The inside moisture does not come through the wall, so it is not necessary to waterproof it. Of course, all concrete walls should be waterproofed, as nearly all block are made by the dry process and hence are somewhat porous. The inside moisture is generally caused by condensation of the water in the air. The warm air in the house is charged with moisture, and, coming in contact with the cool wall, this moisture is condensed. Insulation is the remedy. If applications of some good waterproofing compound on the inside and outside faces of the wall do not cure the trouble, then undoubtedly it is due to imperfect insulation; that is, there should be more dead-air space in the wall. A method that has been tried with success is to fur the outside wall and put plaster on metal lath over the furring. This wil give a continuous dead-air space, and the difference in temperature of the wall and room will never be enough to create condensation. The furring can be done inside, of course, but is more effective on the outside, as it will tend to keep the temperature more even the year through.

New Kind of Cement.

In a petition filed with the city counciy on Monday, the Engineers' and Architects' Association of Southern California asks that the city building ordinance be so amended as to permit the use of any material for building purposes that shall be found equally as good or better than those named in the specifications for contemplated work.

While the petition does not state so, it is generally known that its object is to bring about the use of a cement manufactured from tufa rock. When the work of building the aqueduct was begun it was found that there were immense quantities of the tufa rock at Haiwec, which is on the line of the aqueduct and on land owned by the city. The city erected a tufa mill at Haiwec and has been mixing the tufa with the cement. Tests conducted for years have proven conclusively that the tufa cement is better than the neat article, after it has set for thirty days. It is much cheaper than neat cement, and if its use is permitted in Los Angeles, it may have a marked effect on building operations.—Builder and Contractor.



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Wooden frame, sheathed on outside, Portland Cement stucco on KNO-BURN Lath.

Interior walls lathed with KNO-BURN Lath.

"The Proof of the Pudding Is in the Eating"

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Our booklets "K" and "O" contain full information about KNO-BURN Lath and methods of using it. Sent free.

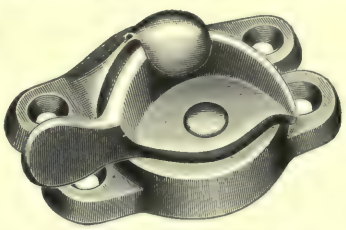
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Look closely at this illustration.

See how the fibres of wood are hooked down, firmly holding the fresh driven nail.

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Now multiply what happens to one nail by what happens to all the nails in your roof, fence or clapboarding.

And you have the reason why work nailed with ordinary steel and wire nails, thinly coated nails and "galvanized" nails, does *not* last.

And you have the reason, too, why it is *not* economy to use such nails.

By paying a little more you can get "MIFCo" heavy zinc coated nails.

Every hundredweight of these enduring nails is coated with 12 pounds of pure zinc. And zinc, like copper, is indestructible.

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URGE PAINTING IN FALL

Manufacturers Give Reasons Why That Season Is Favorable.

Some who make a specialty of roofing and outside work find more or less spare time in the fall season which could be occupied profitably if the necessary effort were made to disseminate the right information as to the best time to do painting to insure durable service and especially in bringing it to the attention of property owners. The Paint Manufacturers' association has prepared five reasons for having painting done in the fall.

First—In the fall the surface is thoroughly dry. During the spring a surface which needs repainting is sure to contain moisture and dampness or frost, and it cannot be successfully painted until it has thoroughly dried out.

Second—When the wood is dry it absorbs more of the paint; the paint penetrates deeper into the wood, therefore gets a firmer hold on it.

Third—Paint cannot be successfully applied in damp, cloudy or unsettled weather. In the fall the weather is more settled and uniform and generally warmer; therefore, it is an excellent time for painting.

Fourth—A house needs its protecting coat of paint more in the winter months than at any other time. A house in need of painting should never be allowed to go over the winter without this protection.

Fifth—It is easier to keep the winter's moisture and dampness out by applying a coat of paint in the fall, when the surface is dry and receives the oil and pigment so as to cover and protect the surface.

These reasons apply as properly to metal work, whether roof, conductors, eave troughs or flashings, as they do to woodwork.

Use of White Lead.

Pure white lead reaches the painter in the form of a thick paste. It has been thoroughly ground and the pigment is extremely fine. All that is necessary is to thin the white lead paste down with pure linseed oil and necessary thinners, and color to suit any particular purpose desired.

Pure white lead has a natural affinity for pure linseed oil. The linseed oil and white lead combine into one perfect product—paint—just as sugar and water combine into syrup. Because of this perfect combination of linseed oil and white lead the house painted with a pure white lead mixture is certain to be well protected, and a beautiful job results. When pure white lead is used there is an entire absence of cracking and scaling paint.

Pure white lead paint wears long and evenly, no burning or scraping of the old paint is required when a new coat of paint is applied over the old white lead coat. Pure white lead has been the standard of paint excellence for hundreds of years and will continue as the best paint material because of its ability to give the most exacting service and to maintain under the most violent elemental disturbances a fabric of undiminished depth and surface solidity.

Pure white lead wears defiantly against such enemies as unseasoned wood, prevailing gases, if any, and a great multitude of forces inimical to its appearance and durability. While it is not always successful in resisting the advances of these untoward and disturbing conditions, it invariably wages a good fight and surrenders without discredit.—Architect and Engineer.

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Removes all Spots and Discolorations from Concrete, Cement and Stucco Houses

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IT is made in a variety of decorative shades including a superb reproduction of Bedford Sandstone, Pure White, Colonial Buff, and Pompeiian Buff. It transforms a dull, drab concrete building into a thing of beauty. It is not expensive, is easily spread on with a brush and any painter can use it.

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Build Beautiful Houses

It is really cheaper to be beautiful than ugly. Your reputation for taste depends mostly upon the outside of your house. Most people never see the inside. The soft, rich, velvety tones of

Cabot's Shingle Stains

make beautiful houses more beautiful, ugly houses attractive, and redeem commonplace houses. They are also cheap, easy to apply, and guaranteed fast colors; and they are made of Creosote, "the best wood-preservative known."

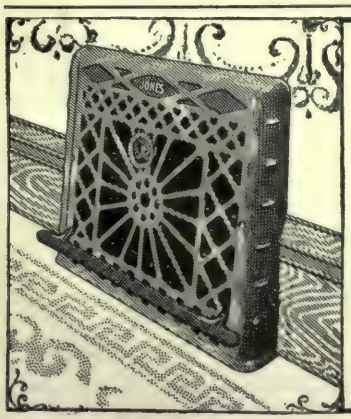
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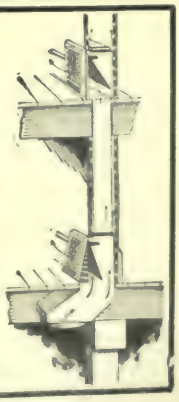
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DO NOT BUILD until you see the 40 artistic and practical designs of houses, bungalows and cottages illustrated in "HOMES OF CHARACTER." All new plans, with concise descriptions and accurate cost estimates. The book you need if you intend to build. Sent postpaid for $1.00. Descriptive circular 2 cents.

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Coloring Concrete Work.

The following materials for colored concrete work have been recommended by an American authority. The quantities given are per barrel of cement, mixed dry with the cement and sand. The sand must be thoroughly dry. In mixing the colors should be made deeper than the required tint, as drying results in bleaching. Venetian red and common lampblack should not be used, as they are liable to run and fade. The schedule for colors is as follows:

For brown, 25 pounds of best roasted iron oxide; or, 15 to 20 pounds of brown ochre.

For black, 45 pounds of manganese dioxide.

For blue, 19 pounds of ultramarine.

For buff, 15 pounds of ochre. (This is likely to considerably reduce the strength of the mixture.)

For green, 23 pounds of greenish blue ultramarine.

For gray, 2 pounds of boneblack.

For red, 22 pounds of raw iron oxide.

For bright red, 22 pounds of Pompeian or bright English red.

For purple, 20 pounds of Prince's metallic.

For violet, 22 pounds of violet iron oxide.

For yellow, 22 pounds of ochre.

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Now if the problem be given proper consideration, it means *time* and *time* is money. We would be speedily overwhelmed with requests if this were a *free* offer, consequently it is not free. No signed contract is asked for. We propose to make our work so pleasing and satisfactory as to demonstrate beyond a question that the *best* is certainly the *cheapest* for you. The fact that *houses* built from our designs *sell* advantageously when built proves they are *practical* and *desirable*. *This is an important matter should you wish to dispose of your property.*

REMEMBER:—It is not what *you pay for plans* that is the *real consideration*, but it is *what you get*. Why? Because upon your *plans* and especially the *details* of *construction* depends utterly the *proper* or *improper* expenditure of *all your building funds*. Quite important, is it not?

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Keith's, Dec., '11.



Figuring Radiation.

THE days of figuring heating surface for warming buildings by the "rule of thumb" or cubic contents method and guessing at the amount to add for glass and wall exposure is past. The glass and wall exposures are the real factors and no estimate is accurate that does not deal with them as such.

Rules — The following rules we have found will meet the requirements of the northwestern section of the United States for dwellings:

G. Glass surfaces in square feet.

W. Exposed wall in square feet.

CC. Cubic contents of room in feet.

Steam (5 lbs. pressure)—Sq. ft. radiation equals: $(G \div 2) + (W \div 10) + (CC \div 200)$.

Hot water (180 deg. F.)—Sq. ft. radiation equals: $(G \div 2) + (W \div 10) + (CC \div 60)$.

For living rooms and dining rooms add 15 to 20 per cent.

The above rules will be found ample when the radiation has been properly distributed and the proper size mains supplied.

For stores, churches, auditoriums, etc., a small proportionate amount of radiation will be required.

For the northern and western exposures add 10 per cent to 15 per cent; eastern, 5 per cent to 10 per cent, depending upon their glass surface. Add 50 per cent for indirect, 25 per cent for direct-indirect.

Size of Mains.

Because of varying conditions, some of which are enumerated on the preceding page, no arbitrary rule can be laid down to fit all cases. It is good practice to be on the safe side, and the sizes given in the following table may be confidently used for all ordinary conditions.

All piping should be figured as radiation.

Sizes recommended for one-pipe steam are based upon steam and water flowing in same direction. Where branches pitch back to main and the steam and water flow in opposite directions, increase diameter of branch one size.

Size of Main	Sq. Feet of Radiation			Diam. of Returns 2 Pipe Steam		Diam. of Drip
	Steam 1 Pipe	Water 2 Pipe	Steam 2 Pipe	Dry	Sealed or Wet	
Inches				Inches	Inches	Inches
1¼	60	100	80	1	1	½
1½	120	180	160	1¼	1	½
2	240	300	320	1½	1¼	½
2½	420	400	640	2	1½	½
3	800	600	1000	2	2	¾
3½	1200	800	1500	2½	2	¾
4	1600	1100	2000	2½	2	¾
4½	2200	1400	2500	2½	2	¾
5	3000	2000	3600	3	3	1
6	4000	3000	5000	3½	3	1

The mains given for water are for average residence work. The same mains will carry a larger amount of surface in higher buildings.

Do not use a smaller main than 1¼ inches, nor return less than ¾ inch.

For diameter of main for two or more branches add together internal area of branches and use nearest diameter to their sum for main.

Sq. Ft. of Radiation in Stack	40	50	60	70	80	90	100
Cold-Air Duct, Area Sq. Ins.	60	75	90	105	120	135	150
Warm Air Duct 1st Floor, Ins.	80	100	120	140	160	180	200
Above First Floor, Inches	60	75	90	105	120	135	150
Rectangular Registers Above 1st Floor Inches	8x15	10x16	12x15	12x19	12x19	14x22	14x22
1st Floor, Ins.	8x12	9x12	10x14	10x16	12x15	12x19	12x19
Size of Tappings, Steam	1x¾	1¼x1	1¼x1	1¼x1	1½x 1¼	1½x 1¼	1½x 1¼
Size of Tappings, Hot Water	1¼x 1¼	1¼x 1¼	1½x 1½	1½x 1½	1½x 1½	1½x 1½	1½ 1½

If the apparatus will heat 70 degrees in zero weather it will heat under same pressure and draft conditions to the temperature shown below the line when the outside temperature is that given above the line.

—20	—10	0	10	20	30	40	50	60	70
59	64	70	75	81	87	93	105	111	117

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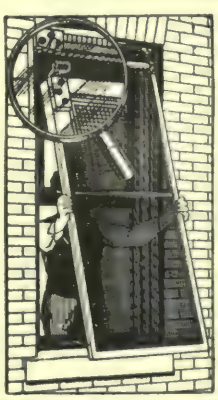
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To Secure a Good Chimney Draft.

The draft section of a chimney should not be larger than is necessary to allow an exit for the products of combustion. If it is, ascending and descending currents are produced in the chimney, which cause it to smoke. The placing on top of the chimney, of a conical pot, narrower than the chimney itself, is an advantage, as it permits the smoke to escape with sufficient velocity to resist the action of the wind. The chimney should be sufficiently high, because, as the draft is caused by the excess of the external over the internal pressure, this excess is great in proportion as the column of heated air is longer.

Constructing a chimney by extending the flue downward to the floor, and in many cases into the cellar creates a place for accumulation of soot, ashes, etc., so as to save the expense of cleaning the flue; then the cold air below the pipe hole chills the entire column of air in the chimney; it is, therefore, heavy and impedes the ascent of the smoke. The remedy is to either fill the flue with cement to within six inches below the pipe hole, or cut off the flue with a sheet iron plate, the plate to be covered with several inches of cement, so as to make it airtight. The result will be to apply the heat at the base of the flue and a good draft obtained.

Often complaints are made that the cook stove will not operate, although the pipe was carefully fitted into a chimney that has a good draft, and which has been in use for many years. Investigation proves that the stove has been attached to a chimney whose base contains a very large, old-fashioned open fireplace. The remedy for this is same as give above.

The chimney of the kitchen may be much lower than the main part of the house. The wind blowing over the house falls like water over a dam, sometimes almost perpendicularly on the top of the chimney; thus it beats down the smoke contained therein. The remedy is to build up the chimney or add a smokestack to equal the height of the main building.

A building or a large tree may be near to and higher than the top of the chimney, so that the wind passing over them would blow down the chimney.

When there is more than one opening in the chimney, a great variety of complications may affect the draft; so see that all the openings into the flue, no matter what kind, excepting the one you are going to use, are securely closed.

A new or green chimney will never have a perfect draft. It will not draw perfectly until it is thoroughly dry, which sometimes requires two to four weeks' time.

Care should be exercised in building chimneys to avoid dropping mortar on the inside, which sometimes causes serious trouble by stopping the air course. A heavy weight may be let down by a rope and worked against the inside of the flue, to force an opening.

All air that passes through the chimney should first pass through the fire unless used to check the draft.

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The member of the legislature, of whom some graft stories had been circulated, was about to build a house.

"You will want a southern exposure, I suppose?" asked the architect.

"No, sir!" said the man. "If you can't build this house without any exposure, I'll get another architect."—Yonkers Statesman.

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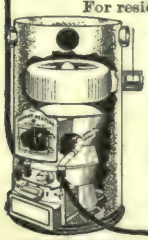
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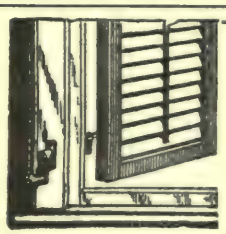
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SPLINTERS AND SHAVINGS

GLASS, tinted white like marble, where used for wainscoting of bath-rooms, not only adds to the sanitary, cleanly appearance of the room, on account of it being an opaque white glass, but gives a perpetual condition to the walls which can not be obtained by the use of marble or other stone. Marble soon loses its polish and deteriorates; and tile crazes and shortly becomes unsightly. Glass for this purpose is unequaled, and a bath-room wherein this sanitary material is installed is sure to give added pleasure to the morning ablutions. Glass can also be used for the tops of butler's pantry cabinets, kitchen table tops, etc. Experts in cooking say that fine pastry can be made by kneading on a pastry board made of glass."—National Glass Budget.

Brickmaking an Art.

"Brick is manufactured in an almost endless variety of shapes, sizes and color tints, and is composed of clay, sand-lime, concrete and even glass," remarked a brick manufacturer the other day. "Clay is found in different colors and is treated in various ways to produce the many effects as to color and texture now upon the market.

"The skillful mixture of different clays and various methods of burning produce surprising results.

"The dry pressed brick is made from carefully prepared clay pressed with a minimum amount of water.

"The sand mold brick is pressed in mud form into sanded molds, hence its name.

"The wire cut brick in either smooth or rough surface is what is commonly known as mud brick, a greater amount of water being used in its manufacture and where special roughness is desired the lumps are allowed to persist, thus making more resistance to the wire while in the plastic state, producing the extra rough surface.

"Another surface is made by water dropped upon the brick, giving it a beautiful texture. Repressed brick are again placed in the mold and pressure applied after cutting. This is often done to vitrified paving brick, which in skillful hands has found a place in certain positions, even for residence architecture.

"A very effective brick face is produced by a fracture of the face lines by great pressure after the operation of burning is entirely completed. Several bricks are allowed to fuse and the resulting fracture or rock-face, as it may be termed, is very pleasing, especially for work close to the eye."

Sidewalk Takes Place of Street.

A delightfully homelike appearance is given to a little suburban scene, says Cement World, by the broad stretches of lawn that extend to the central thoroughfare, which, however, is not a street, but a wide concrete sidewalk. Delivery wagons approach from the rear of the houses through wide, clean alleys; while automobiles can make use of the intersecting streets so that they can stop within a few rods of any house in a block.

There are many advantages in this plan for residential sections, the clean appearance of such a place of homes, without dust or street refuse, being the first consideration. It is much quieter and more secluded as there are no teams or drays clattering past; it is safer for the children, as there is no danger from speeding automobiles. Also, it is much more economical, as the owner who laid out the tract did not have to allow so much area for street use; there was no expense to the householders for macadam or asphalt pavements; while each property owner's share of expense for the central sidewalk would be about equal to his assessment for a cement walk on an ordinary street.

Blackboard Slating Compound.

There are many formulas, but I find the following one of the most satisfactory: Cut one pound of orange shellac

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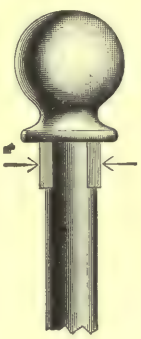
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The small wings on the pin prevent it from working up out of the joint. This pin is patented and is one of the many desirable features to be found only in STANLEY DOOR HINGES.

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THE STANLEY WORKS

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in one gallon of 95 per cent grain alcohol, then add one-half pound of the best ivory drop black, five ounces of the finest emery flour and two ounces of ultra-marine blue. Mix thoroughly and keep in an air-tight vessel. Stir frequently while using it. It must be applied very thin, using a broad soft brush. Put it on rapidly, so as to avoid brush marks.

A cheaper and quite good slating may be made with lampblack four parts, ultramarine blue one part, all by weight, mixed with a little oil and japan driers, adding also one part by weight of flour pumice stone. Make it thin, so as to avoid brush marks, and use a wide soft brush.

Removing Some Common Stains.

A deluge of ink is a tragedy, but it need not be feared if taken in time. As a general thing plentiful sopping with cold water, using a succession of cloths, will do the trick. A whisk broom is most useful for rinsing out the soiled water. This treatment is effectual on colored fabrics, but it must be applied immediately. On white fabrics soaking in milk will usually take out even an old stain, but several applications and rinsings may be necessary.

Iron rust succumbs to a paste of lemon juice and salt and a prolonged exposure to the sun. Javelle water takes out mildew, and it can also be treated with a rotten egg. Paint stains, unless very old, can be taken out with turpentine. An old stain will yield to repeated applications of ammonia and turpentine in equal parts, with a subsequent washing out in soapsuds. Grease generally yields to ammonia, or to commercial chloroform, the latter rather difficult to obtain.

Many fruit stains can be taken out by the simple process of pouring boiling water through them. Obstinate peach, pear of plum stains will soak out in a bowl of soapsuds set in strong sunshine for two or three days. This latter treatment is far better for delicate fabrics than any use of chemicals.

The highly recommended gasoline requires a good deal of skill to manage it properly. At best it is only good for general griminess, not for definite spots and, except for silks, has no superiority over simple soap and water.

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Keith's magazine on home building

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